



City Council of Gibraltar.



ANNUAL REPORT

ON THE

HEALTH OF GIBRALTAR

FOR THE YEAR

1930.

BY

Major G. D. JAMESON, D.P.H., R.A.M.C.,
Medical Officer of Health.

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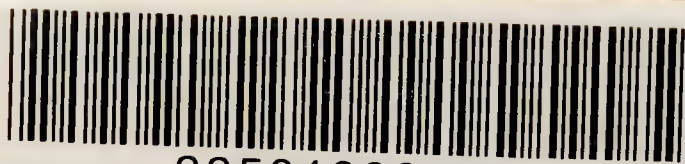
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§ Cert. Inspector of Meat and Other Foods.

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* Allowance paid to private medical practitioners as a retaining fee for their services.

† Allowance paid to an Officer of the R.A.M.C. for medical services at North Front District.

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H.E. the Governor.

The Hon. Colonial Secretary.

The Deputy Director of Medical Services, Gibraltar
Command.

The Senior Naval Medical Officer, Gibraltar Command.

The Captain of the Port.

The Port Surgeon.

The Surgeon, Colonial Hospital.

The Medical Officer of Health.

The Chairman, City Council.

The President, Exchange Committee.

The President, Chamber of Commerce.

Secretary—H. J. S. NORTON, Esq.



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P R E F A C E.

The General Health of Gibraltar has been satisfactory during the year under review.

A mild outbreak of Chicken Pox occurred in the earlier part of the year, and the incidence of Pulmonary Tuberculosis is somewhat higher than in 1929. The zymotic death rate is, however, lower than in previous years.

There was no case of Small Pox or Undulant Fever, and the number of cases of Enteric Fever shows a decrease.

The Infantile Mortality rate, though higher than for 1929, compares favourably with previous years.

Thanks are due to those who have contributed to the preparation of this Report, and to the Local Press for their continued assistance.

*G. D. Jameson, Major, R.A.M.C.,
Medical Officer of Health.*

*Public Health Department,
Gibraltar, May, 1931.*

CITY COUNCIL OF GIBRALTAR.



PUBLIC HEALTH DEPARTMENT.



SUMMARY OF VITAL STATISTICS FOR 1930.

Total area of Gibraltar Territory	... ..	{ 1,387 acres, 2 roods, 3 poles
Area of the City	... ..	{ 104 acres, 3 roods, 33 poles.
Estimated Total Civil Population of Gibraltar		16,448 persons.
Estimated Fixed Civil Population of Gibraltar		15,526 persons.
Births in Fixed Civil Population	... ..	{ 178 Males. 171 Females.
Total Births	... ..	349.
Birth rate per 1,000 of Fixed Civil Population		22.47.
Deaths in Fixed Civil population	... ..	{ 122 Males. 118 Females.
Total Deaths	... ..	280.
Crude death rate per 1,000 of Total Civil Population	... ..	{ 14.5.
Average crude death rate for previous ten years	... ..	{ 16.46.
Standardised death rate corrected for age and sex distribution	... ..	{ 17.06.
Death rate from Pulmonary Tuberculosis	... ..	2 per 1,000.
Infantile Mortality rate	... ..	71.3 per 1,000 births.

METEOROLOGICAL OBSERVATIONS FOR THE YEAR 1930.

Latitude 26° 6' N. Longitude 5° 21' W.
Instruments verified at the National Physical
Laboratory, Kew.

The Meteorological Station is situated in an obsolete bastion on the fortifications on the South-West side of the Rock, the height of the ground being 50 feet above mean sea level. Here all the instruments (except the anemometer) are kept.

The shade thermometers, kept in a Stevenson screen are: one self-recording maximum, one self-recording minimum, a dry and wet bulb. A self-recording grass thermometer is used for registering the temperature on the grass.

The rain gauge is an 8 inch copper meteorological pattern.

The anemometer is fixed in Victoria Gardens, North Front, on the isthmus which joins Gibraltar to the mainland, and clear of the Rock to avoid eddies.

A report is sent twice daily to the Meteorological Office, London, and daily to the *Gibraltar Chronicle* for general information. A complete monthly report is also sent to the Meteorological Office, London, for publication in their journals.

The report contains statistics showing the means for the year in barometric pressure, air, temperature, rainfall, humidity, cloud and wind, compared with the averages for a series of years, number of days of clear sky, overcast days, and days on which rain fell during the year. Readings are taken every day throughout the year at the 7th, 13th, 18th, and 21st hour, but the following tables are compiled from the readings at the 7th, 13th, and 21st hours only.

WEATHER.

Rain Season 1929-30	32.18 inches.
Rainfall for the year 1930.....	36.26 ,,
Number of days with 0.1 inch of rain or more	89
Number of days with 0.4 inch of rain or more	72
Wettest day.....	3.11 ins. 29th Nov.
Highest recorded temperature in the screen.....	} 93°—12th Aug. 8th Sept.
Lowest recorded temperature in the screen.. .. .	
	} 40°—9th Feb. 20th ,,

Mean temperature for the year	65°
Mean Humidity	75%
Lowest temperature on the grass	38°—23rd Dec.
Mean amount of cloud for the year ...	4·2
Number of days of clear sky	101
Number of days of overcast sky	54
Number of days with thunderstorm ...	8
Number of occasions when hail fell ...	3
Number of gales and gale gusts.....	22
Number of days with fog	7
Number of days with frost	—

BAROMETER. The mean Barometric Reading for the year was 30·045 when reduced to mean sea level and to a temperature of 32° F. The highest corrected reading of the year was 30·404 on the 15th February, and the highest corrected monthly mean 30·128—November. The lowest corrected reading of the year was 29·455 on the 28th November, and the lowest corrected monthly mean 29·907—April. The barometer for the year was .029 inches below normal.

TEMPERATURE. The mean temperature for the year was 65° which was 0·7° above the average; the highest shade temperature recorded was 93° on the 12th of August and 8th September, the unusually high reading of 90° shade on the 15th May constituted a record for that month.

WIND. Westerly winds again predominated, and the force was much above the average, gale force being reached on 22 occasions.

RAINFALL. The rainfall for the year was 0·50 inches above the average owing to the abnormal fall of 5·86 inches in June, which was easily a record for that month. November was the wettest month with 7·25 inches, though this all fell on the 1st and last four days of the month, the 2nd and 25th being quite dry and warm.

HUMIDITY. The mean relative humidity of the atmosphere (percentage of saturation of the air) was normal for the year. As will be seen by the reference table the average humidity is fairly heavy, though considerable variations occur, sometimes as much as 68%.

These details and comparative tables of the Meteorology of Gibraltar are given in the Annual Meteorological Report of Gibraltar by Mr. Henry Bentley, Public Works Department, Meteorological Observer.

TABLE I.

Month	Barometric pressure reduced to sea level & 32° Fahr. Inches.	Maximum and Minimum Temperatures.			Difference from average for 40 years.	Maximum date.	Minimum date.
		Maximum °F.	Minimum °F.	Mean °F.			
Jan.	30·097	60	51·3	55·7	+ 0·9	67—24th	43—28th
Feb	30·060	60·6	46·9	53·8	— 2·2	69—3rd	40—9th 20th
Mar.	30·033	66·5	52	59·3	+ 1·8	73—30th	44—3rd
April	29·907	65·5	52·5	59	— 2·0	71—25th	47—17th
May	30·051	74	57·8	65·9	+ 0·4	90—15th	52—5th 10th
June	29·981	75·9	60·1	68	— 2·5	85—25th	53—3rd
July	29·989	83·1	64·8	73·9	— 0·9	88—20th	55—25th
Aug.	30·030	85·5	69·4	77·5	+ 1·5	93—12th	64—7th 16th
Sept.	30·028	83·3	67·3	75·3	+ 2·9	93—8th	61—18th
Oct.	30·125	78·2	63·3	70·7	+ 4·6	89—7th 10th	54—27th
Nov.	30·1 28	69·7	56·7	63·2	+ 2·8	78—21st	48—28th 29th 30th
Dec.	30·109	62·5	51·7	57·1	+ 1·1	67—12th 27th 30th	43—23rd
Year...	30·045	72·1	57·8	65	+ 0·7	93—12th August 8th Sept.	40—9th 20th Feb.

TABLE II.

Month.	Shade Temperature.			Humidity.		
	7th hour.	13th hour.	21st hour.	7th hour.	13th hour.	21st hour.
January ...	53·4	58	54·3	83	73	81
February...	48·1	57·5	50·5	82	62	79
March	53·3	63·3	56	83	62	80
April	54·2	62·5	56·1	85	63	80
May	59·4	70·1	61·9	84	60	79
June	62·1	71·7	64·5	87	68	83
July	66·6	78·8	70·7	81	55	73
August ..	70·6	80·8	74	84	62	76
September	68·7	79	71·3	82	60	77
October ...	64·9	74·4	67·4	83	65	79
November .	57·8	66·9	59·9	84	67	81
December..	53·2	61·5	55·4	83	67	81
Year	59·4	68·7	61·8	84	62	79

TABLE III.

Month	Terrestrial Radiation.			Solar Radiation.		
	Temperature on the grass.			Black bulb in vacuum.		
	Mean	Min.	Date.	Mean	Max.	Date.
January ...	48.4	39	10th	81	114	15th
February...	43.5	39	11th	100	124	25th
March	48.8	40	3rd	109	126	30th
April	49.3	42	17th	104	130	25th
May	54.8	48	5th	116	142	15th
June	56.4	52	1st	116	138	27th
July	61.7	55	4th			
August ...	65.3	58	25th	132	140	6th
September	64.5	55	16th	123	144	8th
October ...	60	51	30th	121	146	3rd
			19th	113	142	7th
			27th			
November..	53.1	44	30th	100	129	22nd
December..	47.9	38	23rd	96	121	10th
Year	54.5	38	23rd Dec.	109	146	3rd Sept.

TABLE IV.

Month.	Cloud amount 0-10.			Clear sky days.	Overcast days.
	7th hour.	13th hour.	21st hour.	Less than 0.2 cloud.	More than 0.8 cloud.
January ...	6.6	7.4	5.5	1	9
February...	4	4.9	3.3	7	4
March	4.8	5.2	3.4	6	4
April	6	5.9	5.1	4	6
May	3.3	4	1.7	11	1
June	4.9	4.2	2.4	11	6
July	2.3	1.1	1.2	24	2
August ...	5.4	3.2	2.2	12	3
September	4.6	3.8	2.7	9	2
October ...	5	4.5	3.2	7	—
November	5.4	4.5	4.4	4	8
December..	4.8	5.6	4.2	5	9
Year	4.8	4.5	3.3	101	54

TABLE V.

Month.	Rainfall.		Greatest fall in 24 hours beginning at 7 a.m.		Number of days with 0.1 inches or more.	Number of days with 0.4 inches or more.	Rain Season.	
	Total inches.	Deviation from average					1929- 30	
			Inches.	Date.			Month.	Total inches.
Jan.	4.98	—0.12	1.52	31st	18	14	Aug. ...	0.04
Feb.	6.52	+2.32	1.52	11th	12	11	Sept. ...	1.02
March ...	1.76	—3.03	1.10	21st	8	6	Oct. ...	2.58
April ...	4.52	+1.85	0.75	23rd	17	15	Nov ...	2.10
May.....	0.34	—1.38	0.20	27th	3	2	Dec. ...	2.46
June.....	5.86	+5.39	2.94	6th	8	7	Jan. .	4.98
July.	—	—0.04	—	—	—	—	Feb. ...	6.52
August..	—	—0.12	—	—	—	—	Mar. ...	1.76
Sept. ...	0.04	—1.34	0.04	10th	1	1	April ..	4.52
October..	2.04	—1.26	0.43	11th	5	3	May ...	0.34
Nov.....	7.25	+0.87	3.11	29th	7	5	June ..	5.86
Dec.....	2.95	—2.64	0.79	1st	10	8	July ...	—
Year	36.26	+0.50*	3.11	29th Nov.	89	72	Rain Season	32.18

* These deviation figures are taken from the Meteorological Office Reports for 1930 which now give the average Rainfall for Gibraltar as 35.76 inches.

TABLE VI.

Month.	Winds obs. at 7-13-21 hr. 1095=year.								Calm.	Force 1-3	Force 4-7	Force 8 or more
	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.				
January ..	5	2	29	5	2	11	22	17	—	20	73	—
February...	4	3	9	5	1	5	31	21	5	32	47	—
March ...	1	3	25	8	3	14	22	13	4	25	64	—
April	3	1	3	2	2	39	30	9	1	29	60	—
May	—	3	17	3	2	22	34	9	3	33	57	—
June	—	4	4	7	2	47	21	5	—	37	53	—
July	—	8	27	6	—	23	19	5	5	17	71	—
August	4	2	39	1	22	5	4	1	15	16	62	—
September.	1	2	30	2	5	13	20	1	16	15	59	—
October ..	—	5	20	10	1	12	13	5	27	18	48	—
November	2	3	26	6	1	18	14	12	8	20	62	—
December ..	2	3	12	8	1	4	27	30	6	38	49	—
Year	22	39	241	63	41	214	257	128	90	300	705	—

VITAL STATISTICS.

An estimate by the Police Authorities at the end of 1930 forms the basis on which the various rates connected with the vital statistics have been calculated in this report.

Data concerning the Naval and Military population is not included in this report.

1. POPULATION.

The total Civil population is estimated at 16,448 persons, of which number 15,431 are British subjects other than Maltese, 95 British subjects born in Malta, 832 aliens resident in the Town and 90 aliens resident in the Bay.

The following table shows the fluctuation in population of Gibraltar during recent years:—

How estimated.	British Subjects Fixed Population.	Alien Subjects Floating Population.	Total Population.
Census April 1911	17,021	2,565	19,586
Police Estimate at end of 1913	16,147	2,301	18,448
Police Estimate at end of 1914	16,086	1,950	18,036
Police Estimate at end of 1915	16,163	1,780	17,943
Police Estimate at end of 1916	16,499	1,947	18,446
Police Estimate at end of 1917	16,549	1,977	18,526
Police Estimate at end of 1918	16,096	1,867	17,963
Police Estimate at end of 1919	16,040	1,733	17,773
Police Estimate at end of 1920	16,181	1,509	17,690
Census June 1921	16,753	1,787	18,540
Police Estimate at end of 1922	16,182	1,145	17,327
Police Estimate at end of 1923	16,165	1,181	17,346
Police Estimate at end of 1924	16,177	1,147	17,324
Police Estimate at end of 1925	16,127	1,161	17,288
Police Estimate at end of 1926	16,150	1,013	17,163
Police Estimate at end of 1927.....	16,120	1,076	17,196
Police Estimate at end of 1928	15,719	1,112	16,831
Police Estimate at end of 1929	15,647	1,052	16,699
Police Estimate at end of 1930	15,526	922	16,448

VITAL STATISTICS DURING 1930 AND PREVIOUS TEN YEARS.

Year	Population.		Deaths				Infantile Mortality.		Births.		Zymotic Mortality.		
	Fixed.	Total.	How Estimated	Fixed population. No.	Total population No.	Rate per 1,000 of population.		No.	Rate per 1,000 birth.	No.	Birth rate per 1,000 living of Fixed population	No.	Rate per 1,000 living of Fixed population
						Fixed population.	Total population						
1920	16181	17690	Police Estimate	297	308	18.72	17.45	48	128	375	23.2	20	1.13
1921	16753	18540		Census 1921	282	292	15.74	16.83	44	102.5	429	25.6	33
1922	16182	17327	Police Estimate	298	304	18.40	17.54	38	103.8	366	22.6	27	1.56
1923	16165	17346		285	294	17.63	16.95	40	109.5	365	22.5	32	1.84
1924	16177	17324		250	254	15.45	14.66	33	91	360	22.2	18	1.05
1925	16127	17288		249	256	15.44	14.80	31	83	372	23	10	.52
1926	16150	17163	Police Estimate	271	276	16.78	16.08	46	107	427	25	20	1.2
1927	16120	17196		291	297	18.05	17.27	36	99.1	363	22	13	.8
1928	15719	16831		286	293	18.19	17.40	45	122.9	366	23.2	30	1.7
1929	15647	16699		254	262	16.36	15.68	18	46.6	388	24.7	10	.63
1930	15526	16448		240	240	15.6	14.5	25	71.3	349	22.4	8	.51

These figures represent the population of Gibraltar between the hours of 10 p.m. and 5.30 a.m. To calculate the daily population it will be necessary to add some 5,000 aliens and 1,500 British subjects residing at La Linea who come into Gibraltar daily.

The age and sex incidence of the population of Gibraltar in 1930, is as follows:—

	Persons of ten years of age and over.		Persons under 10 years of age.	
	Males.	Females.	Males.	Females.
British Subjects	5,091	5,981	2,191	2,168
Maltese	76	19		
Aliens in the Bay	90			
Aliens in the Town	226	606		
Totals	5,483	6,606	2,191	2,168

Total Males 7,674; Females 8,774.

2. DEATHS.

The number of deaths registered for the Civil population of Gibraltar during the year was 240, in addition to 40 persons who died after being landed from shipping in the Bay or brought into the Town for treatment.

The crude death rate per 1,000 of the fixed population is 15.6, that of the total population 14.5.

The standardised death rate of the total population, obtained by multiplying the crude death rate by the factor 1,177, is 17.06.

The following table shows the crude death rate for the past 10 years:—

Year	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
Fixed Population	15.74	18.40	17.63	15.45	15.44	16.78	18.05	18.19	16.36	15.6
Total Population	16.83	17.54	16.95	14.66	14.80	16.08	17.27	17.40	15.68	14.5

3. MONTHLY AND QUARTERLY MORTALITY.

The highest number of deaths occurred in February, and the lowest in June.

The death rate during the first quarter of the year was the highest and that of the second the lowest.

The number of death registered each month was as follows:—

January ... 27	April... .. 18	July 20	October ... 20
February... 31	May 26	August ... 22	November.. 25
March ... 28	June 13	September.. 24	December... 26
—	—	—	—
86	57	66	71
—	—	—	—

These figures include cases landed from shipping in the Bay or cases brought into the Town for treatment.

Causes of death in Civil population in 1930, according
to the International Abbreviated List, with
Age and Sex incidence.

Cause of Death.	All Ages	Under 1 year.		1 year and under 2.		2 years and under 5.		5 years and under 15.		15 years and under 25.		25 years and under 45.		45 years and under 65.		65 years and over.		Deaths in Institutions.
		M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
1. Enteric Fever	1	—	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	1
9. Influenza	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
12. Other epidemic diseases...	1	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
13. Pulmonary Tuberculosis..	32	—	—	—	—	—	—	—	—	5	1	7	4	8	4	2	1	5
14. Tuberculous Meningitis...	3	—	—	—	1	—	1	1	—	—	—	—	—	—	—	—	—	1
16. Cancer, Malignant disease	15	—	—	—	—	—	—	—	—	—	—	3	7	1	2	2	—	6
17. Meningitis	5	2	1	1	—	—	—	1	—	—	—	—	—	—	—	—	—	1
18. Cerebral Hæmorrhage and Softening	12	—	—	—	—	—	—	—	—	—	—	1	—	2	6	3	—	2
19. Organic Heart Disease ..	19	—	—	—	—	—	—	—	—	1	—	3	—	2	2	11	—	3
20. Acute Bronchitis	1	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—
21. Chronic Bronchitis	7	—	—	—	—	—	—	—	—	—	—	—	2	—	3	2	—	3
22. Pneumonia	20	3	—	1	2	—	2	—	—	1	—	2	6	1	—	2	—	5
23. Other diseases of res- piratory system	3	—	—	—	—	—	—	—	—	—	—	—	3	—	—	—	—	—
24. Diseases of the Stomach.	1	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
25. Diarrhœa and Enteritis (under 2 years)	7	3	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4
27. Hernia, Intestinal obstruction	1	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1
28. Cirrhosis of Liver	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	1
29. Acute Nephritis and Bright's Disease	13	—	—	—	—	—	—	—	—	—	—	1	5	4	—	3	—	5
31. Puerperal Fever	2	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	1
32. Other accidents and diseases of pregnancy and parturition... ..	2	—	—	—	—	—	—	—	—	—	—	2	—	—	—	—	—	2
33. Congenital Debility and Malformation (includ- ing premature birth)... ..	8	3	5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
34. Senility	17	—	—	—	—	—	—	—	—	—	—	—	1	—	4	12	—	10
35. Violent Deaths (excluding Suicides)	4	—	—	—	—	—	—	—	—	1	—	1	—	1	1	—	—	2
36. Suicides... ..	2	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	—	1
37. Other defined diseases ...	57	3	1	—	—	1	1	—	1	2	1	1	2	14	6	9	15	21
38. Diseases ill-defined or unknown	5	—	—	—	—	—	1	—	—	—	—	2	2	—	—	—	—	1
Totals	240	14	11	2	4	1	5	3	1	10	3	15	19	47	24	30	51	78

MATERNITY AND CHILD WELFARE.

This branch of public health work is now well established in Gibraltar, and a keen interest in its activities is shown by the general public.

The Welfare Centre is well appreciated and does good work, and the calls on it are ever increasing. The proportion of necessitous cases attending has greatly increased during the past year; so much so that it has been difficult to supply the milk and other foods required and still balance revenue with expenditure.

The admittance of women to the Maternity Ward at the Colonial Hospital during the year was 151, and 29 women in poor circumstances had their confinement paid out of the grant allotted to this service by the Colonial Government.

The Children's Ward at the Colonial Hospital had 176 children admitted during 1930.

STATISTICS.

One hundred and seventy-eight males and one hundred and seventy one females, making a total of three hundred and forty-nine, children were born during the year giving a birth rate of 22·47 per 1,000 of population.

The number of children born in Gibraltar of parents residing at La Linea (British subjects) was 64; 37 of these were males and 27 females.

The following is the birth rate of Gibraltar compared with that of England and Wales and Malta for the past ten years:—

Year	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930
England and Wales	22·4	20·6	19·7	18·8	18·3	17·8	16·6	16·7	16·3	16·3*
Malta	—	36·4	34·5	34·6	33·3	32·9	32·6	31·77	33·25	—
Gibraltar...	25·6	22·6	22·5	22·2	23	25·2	22·5	23·2	24·79	22·47

*Provisional rates.

INFANTILE MORTALITY.

The infantile mortality rate is again satisfactory.

Twenty-five infants under one year of age died during the year giving an infant mortality rate of 71·3 per 1,000 births, the second lowest figure for Gibraltar, the record being in 1929 when the exceptionally low figure of 46 deaths per 1,000 births was reached.

The following table shows the infantile mortality rates for the United Kingdom, Malta and Gibraltar :—

Year	England & Wales	Malta	Gibraltar
1911	130	—	119
1912	95	—	78
1913	108	—	75
1914	105	—	93
1915	110	—	90
1916	91	—	123
1917	96	—	113
1918	97	—	124
1919	89	—	108
1920	80	—	128
1921	83	—	102
1922	77	261	103
1923	69	280	109
1924	75	268	91
1925	75	271	83
1926	70	260	107
1927	69	301	99
1928	69	267	121
1929	74	260	46
1930	60	—	71

WELFARE CENTRE.

The attendances of mothers bringing their children to be weighed and for advice were 2,816. The average number of children weighed at each meeting was 82.

The amount of milk, Virol, Glaxo and other food preparations issued during the year was as follows :—

Milk	5,633 tins
Glaxo.....	93 „
Virol	95 pots
Lactogen	30 tins
Nestle Food	25 „
Feeders	28 No.

The trained nurse paid 213 visits to the homes of children during the year.

The Anglo-Swiss Condensed Milk Company has continued to supply the Centre with milk at a reduced rate and the Glaxo Company presented a case of Dried Milk free of cost.

MIDWIVES.

Eight midwives are registered under "The Midwives Ordinance, 1907."

The number of live births attended by registered midwives during the year was 180, or 51·8 per cent. of the total births, as compared with 55·4 per cent. for the previous year. The ever-increasing popularity of the Maternity Ward at the Colonial Hospital is shown by the continuous dropping-off in the number of mothers in confinement calling in midwives.

The number of still-births for the year was 21.

The inspection of midwives, carried out at intervals during the year proved, on the whole, satisfactory.

Two midwives who had attended on cases developing Puerperal Fever were suspended from practice for 15 days and their bags, etc., disinfected.

SCHOOL CLINIC.

The school clinic has been carried on by members of the medical and nursing staff of the Colonial Hospital.

Mr. Garesse was re-appointed as school dentist.

CAUSES OF, AND AGES AT, DEATH OF INFANTS UNDER ONE YEAR
OF AGE IN GIBRALTAR DURING 1930.

Cause of Death.	Under 1 week.	1 week and under 2.	2 weeks and under 3.	3 weeks and under 4.	Total under 4 weeks.	1 month and under 3.	3 months and under 6.	6 months and under 9.	9 months and under 12.	Total under 1 year.
Convulsions	—	—	—	—	—	—	1	—	1	2
Embolism	1	—	—	—	1	—	—	—	—	1
Hæmophilia	—	—	1	—	1	—	—	—	—	1
Pneumonia	—	—	—	—	—	—	1	1	1	3
Prematurity	4	—	—	1	5	—	—	—	—	5
Gastro-Enteritis	—	—	—	—	—	—	5	2	—	7
General Atrophy	—	—	—	—	—	1	1	—	—	2
Congenital Heart Disease	—	—	1	—	1	—	—	—	—	1
Meningitis	—	—	—	—	—	—	—	3	—	3
Totals	5	—	2	1	8	1	8	6	2	25
Death rate in each age period per 1,000 births	14·3	—	5·7	2·8	22·9	2·8	22·9	17·1	5·7	71·3
Percentage of total infant deaths occurring in each age period	20	—	8	4	32	4	32	24	8	—

PREVALENCE AND CONTROL OF INFECTIOUS DISEASES.

The year under review has been satisfactory as, notwithstanding the fact that the number of cases of infectious disease occurring shows an increase on the previous year, this is mainly accounted for by an appreciable increase in the figures for Chicken Pox and Measles which diseases occurred in mild epidemic form and did not account for any deaths.

The main features of the year were :—

1. The rise in the notifications of cases of Pulmonary Tuberculosis.
2. The large drop in the Enteric Fever incidence.
3. The absence of cases of Undulant Fever and Small Pox.

With regards to this latter disease the immunity of the Colony may be considered to be the direct result of stringent enforcement of and strict compliance with the vaccination laws in force. Two cases occurred of refusal to comply with the Vaccination Ordinance of 1887, and legal proceedings were instituted.

Rubella and Mumps were added to the list of infectious diseases required to be notified under Section 146 of "The Public Health Ordinance, 1907."

The number of cases of infectious diseases reported during the year, exclusive of Naval and Military cases and cases landed from shipping in the Bay or brought into the Town for treatment was 393, of which number 110 were Chicken Pox, 70 Pneumonia and 63 Measles.

Eight deaths were attributed to one or other of the eight principal infectious diseases (1 Enteric Fever—7 Diarrhoea and Enteritis), giving a zymotic death rate of '51 per 1,000 of population.

QUARTERLY INCIDENCE OF NOTIFIABLE INFECTIOUS DISEASES.
CIVIL POPULATION.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total	Deaths
Pneumonia	42	9	9	10	70	20
Erysipelas	4	6	4	6	20	—
Chicken Pox	55	42	5	8	110	—
Pulmonary Tuberculosis ...	14	7	27	11	59	32
Diphtheria	7	5	9	3	24	—
Measles	—	46	12	5	63	—
Mumps	3	2	4	2	11	—
Scarlet Fever	1	8	1	—	10	—
Influenzal Pneumonia	6	2	—	2	10	—
Puerperal Fever	2	—	1	—	3	2
Enteric Fever	—	2	3	—	5	1
Gastro Enteritis	—	—	4	—	5	7
Dysentery.....	—	—	—	2	2	1
Rubella.....	—	1	—	—	1	—
Totals	134	130	79	50	393	63

CASES LANDED FROM THE BAY OR BROUGHT INTO
THE TOWN FOR TREATMENT.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Total	Deaths
Pneumonia	1	—	—	2	3	6
Puerperal Fever	1	—	—	—	1	1
Diphtheria	1	—	—	—	1	—
Measles	2	—	—	—	2	—
Dysentery	—	1	—	—	1	1
Enteric Fever	—	3	1	1	5	1
Pulmonary Tuberculosis ..	—	—	—	1	1	2
Erysipelas	—	—	—	2	2	—
Gastro Enteritis	—	—	—	11	11	—
Totals	5	4	1	17	27	11

Age and Sex incidence of notifiable Infectious Diseases amongst Civil Population during 1930.

Notifiable Disease.	NUMBER OF CASES NOTIFIED.														Districts.			Total cases re- moved to Hospital		
	At all Ages	Under 1.		1 and under 5.		5 and under 15.		15 and under 25.		25 and under 45.		45 and under 65.		65 and Over.		North.	Central.	South.	Residents.	Non- Residents.
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.					
Pneumonia	70	6	7	16	10	5	1	4	—	4	1	8	3	1	4	1	65	4	2	3
Erysipelas	20	—	1	—	—	—	—	1	—	2	2	—	11	—	—	1	16	3	1	2
Chicken Pox	110	5	1	19	14	41	26	1	2	1	1	9	6	1	3	—	99	11	2	1
Pulmonary Tuberculosis	59	—	—	2	3	2	7	2	5	6	17	—	—	—	—	1	53	6	1	1
Diphtheria	24	—	—	9	8	24	17	1	2	1	2	—	1	—	—	—	23	19	6	1
Measles	63	—	—	—	2	6	4	—	1	1	2	—	—	—	—	—	44	1	—	2
Mumps	11	—	—	3	1	1	1	—	—	—	2	—	—	—	—	—	10	1	—	—
Scarlet Fever	10	—	—	1	1	2	1	—	1	—	—	1	4	—	—	—	10	—	—	—
Influenzal Pneumonia	10	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	3	—	—	—
Puerperal Fever	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—
Rubella	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Enteric Fever	5	—	—	—	1	—	1	—	2	—	—	—	—	—	—	—	5	—	—	5
Gastro-Enteritis	5	3	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	11
Dysentery	2	—	—	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
Totals	393	14	10	51	40	88	59	15	16	16	28	21	26	2	7	3	345	45	14	28

Monthly notification of notifiable Infectious Diseases.—Civil Population.

DISEASES.												Months.														
Pneumonia	Erysipelas		Chicken Pox		Pulmonary Tuberculosis		Diphtheria		Measles		Mumps		Scarlet Fever		Influenzal Pneumonia		Puerperal Fever		Enteric Fever		Gastro-Enteritis		Dysentery		Rubella	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
January	22	4	1	—	21	—	6	2	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
February	13	6	1	—	13	—	5	4	2	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—
March	7	2	2	—	21	—	3	1	4	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
April	4	1	4	—	16	—	2	2	—	11	—	2	3	—	4	—	2	—	1	—	—	—	—	—	—	—
May	5	3	1	—	9	—	3	2	2	20	—	2	2	—	—	—	—	—	—	—	—	—	—	—	—	—
June	—	—	1	—	17	—	2	1	3	15	—	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—
July	2	—	2	—	5	—	5	2	4	6	—	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—
August	3	1	1	—	—	—	13	3	4	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—
September	4	—	1	—	—	—	9	4	1	6	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
October	4	1	2	—	—	—	5	3	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
November	2	2	—	—	2	—	5	4	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
December	4	—	4	—	6	—	1	4	2	2	—	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Totals	70	20	20	—	110	—	59	32	24	63	—	11	—	10	—	10	—	3	2	5	1	5	7	2	1	1

ENTERIC FEVER.

Five cases were notified during the year, two being returned as Paratyphoid. One case proved fatal.

Five cases were in addition landed from shipping in the Bay or brought into the Town for treatment.

Of the local cases the infection in two instances was traced to sources outside Gibraltar. The source of infection in the other cases could not satisfactorily be traced but infection outside Gibraltar was not improbable.

SEASONAL PREVALENCY OF ENTERIC FEVER IN GIBRALTAR
DURING 1930.

	Jan	Feb.	Mar.	Apl.	May	June	July	Aug.	Sept.	Oct.	Nov	Dec.	Total
Local cases ...	—	—	—	1	1	—	—	—	3	—	—	—	5
Imported cases	—	—	—	—	—	3	—	1	—	1	—	—	5

AGE AND SEX DISTRIBUTION.

Age	Under 5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 45		45 to 65		65 & over		Total.
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	
Cases	—	1	—	1	—	—	—	1	—	2	—	—	—	—	—	—	5
Deaths	—	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	1

DIPHTHERIA.

Twenty-four cases were reported during the year. There were no deaths from this cause. One case was landed from the Bay.

In the majority of the local cases the age incidence was under 10 years.

Of the local cases two were aural and two nasal. Seven cases were treated in hospital.

In three instances the contagion was directly attributable to previous cases in the same premises (contact infection), whilst a 'carrier' accounted for infection in one case. In four cases the disease was contracted outside Gibraltar. It is difficult to account for the infection in the remaining cases which bear no connection with one another.

Diphtheria Antitoxin.

Over 250,000 units were supplied to the hospital and to the general public by the Public Health Department.

SEASONAL PREVALENCY OF DIPHTHERIA IN GIBRALTAR DURING 1930.

[illegible]

AGE AND SEX DISTRIBUTION.

[illegible]

MEASLES.

The figures for Measles appear high in comparison with the previous years. The figures for 1929 were, however, exceptionally low.

Sixty-three cases were reported and there were no deaths from this cause.

SEASONAL PREVALENCY OF MEASLES IN GIBRALTAR DURING 1930.

[illegible]

AGE AND SEX DISTRIBUTION.

Age	Under 3		3 to 5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 45		45 to 65		65 & over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cases	4	6	5	2	19	16	5	1	1	1	—	—	1	2	—	—	—	—	35	28
Deaths	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	NIL	

CHICKEN POX.

The number of cases of this disease is higher than in the previous year. The cases reported amounted to 110, and were all of a mild nature and cannot at any time be considered to have amounted to an actual epidemic.

The majority of the cases (97) were distributed throughout the first two quarters of the year.

SEASONAL PREVALENCY OF CHI KEN POX
IN GIBRALTAR DURING 1930.

Month	Jan.	Feb.	Mar	Apl.	May	June	July	Aug	Sept.	Oct	Nov.	Dec.	Total
Local Cases	21	13	21	16	9	17	5	—	—	—	2	6	110
Imported Cases ...	—	—	—	—	—	—	—	—	—	—	—	—	—

AGE AND SEX DISTRIBUTION.

Age	Under 3		3 to 5		5 to 10		10 to 15		15 to 20		20 to 25		25 & over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cases	9	5	16	9	36	20	5	6	1	1	1	1	—	—	68	42
Deaths	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

PNEUMONIA.

There were 70 cases reported during the year with 20 deaths. Three cases were, in addition, landed from the Bay.

SEASONAL PREVALENCY OF PNEUMONIA IN GIBRALTAR DURING 1930.

[illegible]

AGE AND SEX DISTRIBUTION.

Age	Under 3		3 to 5		5 to 10		10 to 15		15 to 20		20 to 25		25 to 45		45 to 65		65 & over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cases	19	17	3	—	1	—	4	1	1	—	2	—	5	1	8	3	1	4	44	26
Deaths	4	4	—	—	—	—	—	—	1	—	—	—	—	2	5	2	—	2	10	10

SCARLET FEVER.

Ten cases occurred during the year all of which were of a mild nature. There were no deaths from this cause.

SEASONAL PREVALENCY OF SCARLET FEVER IN GIBRALTAR—1930.

[illegible]

AGE AND SEX DISTRIBUTION.

[illegible]

UNDULANT FEVER.

No cases of this disease occurred during the year.

SMALL POX.

For the sixth year in succession no cases of this disease have occurred in Gibraltar during the year. No cases were landed from shipping in the Bay or brought into the Town for treatment.

Vaccination.

The number of vaccinations performed during the year was 664. Of these 265 were on children who had attained the age of 12 years.

The Public Vaccinator carried out 652 vaccinations and re-vaccinations during the year.

The following statistics show the state of vaccination for births during 1930:—

Number of children born	349
Died before vaccination	12
Left Gibraltar	35
Certified as insusceptible to vaccination	Nil
Vaccinations postponed	29
Number successfully vaccinated	245
Objectors to vaccination ..	1
Number outstanding (under 3 months of age) ...	28

VENEREAL DISEASE.

The treatment centre is established at the Colonial Hospital where both in and out-patients are treated free of charge.

Laboratory investigations connected with venereal disease are undertaken at the Public Health Laboratories, City Council free of cost to Gibraltar residents and Gibraltarians residing in the neighbourhood, and to the Port.

The number treated in the Male Venereal Ward, Colonial Hospital, was 43, of whom 11 were mercantile seamen. The number of intravenous injections was 403.

PULMONARY TUBERCULOSIS.

The number of cases of Pulmonary Tuberculosis notified during the year shows an abnormal increase on previous years and cannot well be accounted for. The age incidence, however, leads one to think that the majority of these cases are of long standing which for some reason have previously escaped notification.

The number of cases notified amounted to 59, giving a case rate of 3·8 per 1,000 of population, as compared with an average of 1·5 cases per 1,000 of population reported during the previous 10 years.

This disease accounted for 32 deaths, equivalent to a death rate of 2 per 1,000 of population.

The number of cases of this disease accommodated in the Gibraltar Home for Sick and Aged during the year was 6.

AGE AND SEX DISTRIBUTION OF CASES AND DEATHS
FROM PULMONARY TUBERCULOSIS IN
GIBRALTAR DURING 1930.

Age	Under 3		5 to 10 years		10 to 15 years		15 to 20 years		20 to 25 years		25 to 30 years		30 to 40 years		40 to 50 years		50 to 60 years		60 years and over		Total	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
Cases.....	—	—	2	1	—	1	3	1	5	3	3	7	—	10	4	2	6	4	3	4	26	33
Deaths	—	—	—	—	—	—	2	1	3	—	3	2	1	2	4	1	4	2	5	2	22	10

REPORT ON THE DESTITUTE SICK AND TUBERCULOSIS SCHEME.

This scheme is divided into:

(a) Indoor Relief.

(b) Outdoor Relief.

The former (a) comprises the Gibraltar Home for Sick and Aged which accommodates destitute persons ineligible or unwilling to enter other charitable institutions in Gibraltar, and has a portion set apart for cases of Pulmonary Tuberculosis.

The latter (b) affords relief in the form of meat, milk, and, in exceptionally necessitous cases, small money grants to those who though coming under the categories aforementioned cannot suitably be accommodated in the "Home."

Close co-operation is established with the other charitable organisations in Gibraltar to avoid overlapping of relief.

The scheme is administered by the City Council, the Medical Officer of Health being what might be termed the Relieving Officer. There is a Standing Committee composed by members of the City Council which investigates all applications for relief. This Standing Committee met eleven times during the year under review.

The total expenditure on these services for the year amounted to £3,474.

(a) INDOOR RELIEF.

The 'Home' has accommodation for 45 men and 25 women, and the average number accommodated during the year was 60.

Owing to the need for strict economy little could be done in the way of improvements. It is hoped, however, that it may be possible to carry out certain improvements and much needed repairs during 1931.

The cost of feeding has averaged 11½d. per head per day, an exceptionally low figure when it is realised that the inmates are well fed and that special diet is provided to ailing inmates and to those suffering from Pulmonary Tuberculosis.

(b) OUTDOOR RELIEF.

The number of persons in receipt of outdoor relief during the year was as follows :—

January	73
February	77
March.....	79
April	79
May	84
June	84
July	82
August	84
September	85
October	88
November	89
December	87

The total amount of relief issued during the year was :—

Meat	5,985 lbs.
Milk (Fresh).....	3,681 pints
Milk (Condensed)	4,800 tins

in addition to minor money grants.

The total amount expended on outdoor relief was £935 7 10.

DESTITUTE SICK AND TUBERCULOSIS SCHEME.

SUMMARY OF INDOOR AND OUTDOOR EXPENDITURE FOR THE YEAR 1930.

INDOOR RELIEF.

	£	s.	d.	£	s.	d.
Provisions	1,058	0	9			
*Miscellaneous	441	19	2			
Maintenance of Buildings	41	10	5			
Rent	373	4	0			
Light	28	12	1			
Water	58	13	2			
Telephone	10	12	6			
Printing	3	6	0			
Insurance	1	10	0			
Funeral Expenses	2	13	0			
Clothing, etc.	117	5	3			
	<hr/>			2,137	6	4
Days of subsistence	21,907					
Average number of inmates	60					
Cost of feeding per head per day	11¼d.					
Cost of feeding per head per year	£17	12	8			
Total all-in cost per head per day	1s.	8¾d.				
Total all-in cost per head per year	£31	17	7¾			
Calories per head per day... ..	2,942					

OUTDOOR RELIEF.

	£	s.	d.			
Meat—7,215 lbs.	270	11	3			
Milk (Fresh)—3,681 pints	53	13	4			
Milk (Condensed)—4,800 tins	170	0	0			
Money Grants	437	8	6			
Printing	3	14	9			
	<hr/>			935	7	10
Salaries				401	10	0
	<hr/>					
Total expenditure on Indoor and Outdoor Relief for 1930				3,474	4	2

*Includes washing and cleaning, coal and charcoal, boot repairs, utensils, ice, medicines, tobacco for inmates, etc., etc.

INVESTIGATION AND PREVENTION OF OTHER DISEASES.

MOSQUITOES.

Anti-mosquito activities were continued throughout the year, additional staff being employed on this work during the mosquito breeding season. The supervision of the anti-mosquito staff was (as in previous years) under the direct control of a sanitary inspector specially detailed for this service.

The varieties of mosquitoes found did not differ from those of previous years, *i.e.*, *Theobaldia longiareolata*, *Culex pipiens*, *Aedes (Stegomyia) aegypti*. Special attention was given to the Upper Rock where out of the way recesses in the stone often afford ideal breeding places at times most difficult to detect.

The results of the campaign are given in the accompanying table.

During the winter months a reduced staff is kept on and they undertake the inspection of roof tanks, underground tanks, etc., to ensure that these are rendered non-accessible to mosquitoes.

The results are as follows:—

	Inspected.	Found defective.
Fresh water tanks... ..	281	42
Brackish water tanks ...	263	78
	<hr/>	<hr/>
Totals ...	544	120
	<hr/>	<hr/>

As has already been stated the number of men employed on this work varies with the season of the year and may be summarised as follows for the year under review:—

2	men	from	1st	January	to	12th	March
5	„	„	13th	March	to	17th	June
7	„	„	18th	June	to	16th	July
9	„	„	17th	July	to	30th	October
2	„	„	31st	October	to	31st	December

Others include—Fresh water tanks, eavesgutters, pits, gullies, galvanized iron tanks, boats, underground tanks, galvanized iron baths, disused tins, storm water drains, buckets, sinks, sumps, pots, brackish water tanks, bottles, flower pots, grinding stones, concrete tanks, animal drinking troughs, &c., &c.

Tubs ...	618	1st Offences	510
Barrels ...	32	2nd	104
Earthenware Vessels	106	3rd	34
Others ...	252	4th	3

Total	... ..	1008	" "	... ..	914
Total number of premises in which breeding places were found..	6th	"	...	...	1

FLIES.

Active measures were taken during the year to further reduce the prevalence of flies and a sanitary inspector was specially detailed to superintend the anti-fly campaign during the summer months. The small Morris van was found most useful in the disinfection of stables, etc. By its use it was possible to transport the men and appliances for these services with much speed and the disinfections were carried out at shorter intervals.

The double collection of house refuse was again carried out during the summer months as also the extra flushing of cabstands, etc.

As mentioned in previous reports the effective disposal of manure is still a problem to be solved in Gibraltar. A certain amount is transported to Spain for agricultural uses but at times difficulties are experienced with the Spanish authorities to allow it through the border.

The number of disinfections carried out in stables during the year was 1,211.

RAT REPRESSION.

A continuous campaign is carried out against rats in Gibraltar. The City Council are responsible for all civil premises and wharves, etc., the military authorities undertake this work in barracks and military properties and the naval authorities employ a staff for this purpose in regard to docks, naval moles, etc.

A number of the rats caught is submitted periodically for examination by the City Analyst as to whether any are plague infected.

Trapping and poisons are the methods employed for rat eradication and all work in this connection is carried out free of charge to applicants of rat infested premises.

The following tables summarise the results for 1931:

Rats destroyed during 1930, by Districts
(not including H.M. Dockyard).

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
South District	586	485	552	470	450	444	516	458	462	467	443	500	5,833
Town ,, 	611	574	572	539	478	492	522	513	479	517	482	443	6,222
North ,, 	237	199	184	200	139	160	148	140	200	185	162	198	2,152
Sheds and Warehouses Waterport Wharf and Commercial Mole	40	33	38	27	20	16	7	21	40	25	28	43	338
Total.....	1,474	1,291	1,346	1,236	1,807	1,112	1,193	1,132	1,181	1,194	1,115	1,184	14,545

Rats examined during 1930.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Infected	—	—	—	—	—	—	—	—	—	—	—	—	—
Uninfected	3	6	6	—	—	—	—	—	—	9	6	9	39

Number of poisoned baits laid by Rat Catchers during 1930.

Jan-	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
9,127	7,611	8,578	7,850	8,009	7,890	8,616	8,523	8,288	8,691	8,559	10,040	101,782

Rats destroyed during 1930.

	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Total
Civil and Colonial Property } Trapped ...	1,447	1,273	1,329	1,215	1,070	1,088	1,176	1,117	1,163	1,173	1,097	1,164	14,312
} Poisoned...	27	18	17	21	17	24	17	15	18	21	18	20	233
H.M. } Trapped ...	107	84	89	92	105	97	96	72	87	93	99	88	1,109
Dockyard } Poisoned...	26	32	38	21	25	26	29	21	22	18	21	27	306
Total.....	1,607	1,407	1,473	1,349	1,217	1,235	1,318	1,225	1,290	1,305	1,235	1,299	15,960

MEDICAL WORK OF THE COUNCIL.

The number of medical examinations of men prior to employment by the City Council and which is carried out by the Medical Officer of Health was 31, distributed as follows :—

January	...	...	...	...	...	...	3
February	...	...	...	...	...	...	—
March	...	...	...	...	...	...	1
April ...	...	...	...	...	...	...	3
May ...	...	...	...	...	...	...	5
June ...	...	...	...	...	...	...	1
July ...	...	...	...	...	...	...	8
August	...	...	...	...	...	...	4
September	...	...	...	...	...	...	—
October	...	...	...	...	...	...	3
November	...	...	...	...	...	...	—
December	...	...	...	...	...	...	3
Total							31

Fourteen men were admitted to hospital for injuries sustained during the course of their duty, and the total number of days in which men were absent from work owing to disability amounted to 1,071.

SERA, VACCINES, &c., KEPT IN STOCK.

Anti-Meningococcus Serum.
 Anti-Streptococcus Serum.
 Anti-Anthrax Serum.
 Anti-Dysentery Serum.
 Tetanus Antitoxin.
 Influenza Vaccine.
 Scarlet Fever Streptococcus Antitoxin.
 Calf Lymph.
 Anti-Plague Serum.
 Plague Prophylactic.
 Cholera Vaccine.
 Diphtheria Antitoxin.
 Tuberculin.
 Diphtheria Prophylactic.

DISINFECTION.

The disinfection of premises and bedding is invariably carried out after the occurrence of cases of infectious disease.

This service is carried out free of charge by trained men under the supervision of a sanitary inspector.

Rooms are disinfected by formalin spray or formalin vapour and bedding, clothing, etc., is removed to the Disinfecting Station at North Front for steam disinfection. The apparatus in use is a Washington Lyons.

In addition, premises are disinfected for vermin on application or when considered necessary and all schools are disinfected during the summer vacations. Stables are regularly disinfected during the fly breeding season.

The following tables give details of disinfections carried out during the year 1930:—

Number of premises disinfected for infectious disease	211
Number of premises disinfected for vermin	22
Number of disinfections carried out in stables	1211
Number of articles disinfected at North Front Disinfecting Station	9974

DETAILS OF ARTICLES DISINFECTED BY MONTHS.

Month	Beds and Mattresses	Bolsters and Pillows	Blankets and Quilts.	Sheets	Counterpanes.	Books.	Sundries.	Total.
January	49	110	69	83	4	—	410	725
February	74	141	123	123	9	10	470	950
March	48	87	71	68	9	4	418	705
April ..	60	85	65	63	6	—	365	644
May	59	100	83	91	9	3	550	895
June	81	138	93	113	9	—	335	769
July	87	176	125	161	9	—	544	1,102
August	92	124	105	128	10	—	287	746
September	142	225	168	136	—	5	343	1,019
October ...	129	256	199	190	10	—	433	1,217
November	55	108	94	83	2	—	318	660
December ..	82	110	69	88	2	—	191	542
Total	958	1,660	1,264	1,327	79	22	4,664	9,974

AMBULANCE FACILITIES.

This service now consists of the following:—

A Morris Ambulance for the conveyance of patients.

A Ford Ambulance used for the conveyance of infected clothing and for the conveyance of patients in cases of emergency.

A Morris minor van for the conveyance of infected bedding, etc.

A mule-driven ambulance kept in reserve and mainly used in the conveyance of small pox patients.

Two men in the Department are qualified drivers and one driver is on the telephone and attends to cases after office hours. In addition all the sanitary inspectors are licensed to drive.

Twenty-six local cases and fifty-two cases landed from shipping in the Bay were conveyed to hospital during the year under review.

Local infectious cases are conveyed free of charge, but a fee is charged for local non-infectious cases and for all cases landed from the Bay.

Details of cases conveyed in the City Council's Ambulances in 1930:—

					Local	Bay
Fractures	...	...	...	...	2	3
Pulmonary Tuberculosis			...	...	2	1
Diphtheria	...	...	...	...	2	1
Pneumonia	...	...	...	...	1	1
Measles	...	...	...	...	1	4
Dysentery	...	...	...	...	—	1
Appendicitis	...	...	...	...	2	3
Enteric Fever	...	...	...	...	2	5
Gastro-Enteritis	...	...	...	...	—	11
Other causes	...	...	...	...	14	22
					<hr/>	<hr/>
			Totals	..	26	52
					<hr/>	<hr/>

REPORT OF THE CITY ANALYST AND BACTERIOLOGIST.

The total number of specimens and samples of all kinds analysed during the year 1930, was 4,776. The activities of the laboratories have been maintained with an increase over last year of 63 specimens. There was an increase of 3·2 per cent. in the number of foodstuffs found to be below the statutory limits. Goats' milks, deficient in milk-fat, were chiefly responsible for the 15·5 per cent. of adulterated samples.

The chemical and bacteriological examination of pathological specimens continue to occupy much of the work. During the visit of the fleet a considerable amount of work was executed in connection with the occurrence of meningitis and the examination of numerous contacts.

A careful watch on the purity of the drinking waters of Gibraltar resulted in 354 samples being bacteriologically examined. Continued investigations into the purity of ærated waters resulted in lead, which contaminated one factory's soda water, being found and removed.

The report has been divided into four parts as follows:—

Part I. Food and Drugs—Public Health Ordinance.

Part II. Miscellaneous.

Part III. Bacteriology, chemical pathology and Public Health Work.

Part IV. Testing of ships for inflammable gas.

Part I.

<i>Articles.</i>	<i>Number examined.</i>
Cow's milk	5
Goat's milk	47
Condensed milk... ..	3
Butter	3
Margarine	4
Lard	2
Spirits (Whisky, Gin, Brandy, and Rum)	21
Tea, Coffee, Cocoa	7
Cereals	2
Sugar	3
Olive Oil	11
Canned products	3
Cheese	1
Drugs	11
Miscellaneous	1
	<hr/>
	124

ADULTERATED SAMPLES.

The number of samples found to be below the standard set out in the Public Health Ordinance was 18, or 15·5 per cent. For comparison, the number below the standard for 1929 was 22, or 12·3 per cent. In all cases where the City Council considered it advisable legal proceedings were instituted against the vendor. Two convictions were obtained and one milk vendor was fined £6 for attempted bribery and also £2 for refusing to sell his milk. Total fines amounted to £18, also costs £2 12 0.

PARTICULARS OF ADULTERATED SAMPLES,

GOAT'S MILK CONTAINING BOTH ADDED WATER AND FAT ABSTRACTION.

Lab. No.	Deficient in Fat per cent.	Added water per cent.	Remarks.
2524	18·3	26·6	Fined £5 with costs £1-3-0.

GOAT'S MILK CONTAINING ADDED WATER.

Lab. No.	Fat per cent.	N.F.S. per cent.	Added Water per cent.	Remarks.
2312	3·31	7·03	12·1	Fined £5 with costs £1-3-0.

GOAT'S MILK DEFICIENT IN MILK FAT.

Lab. No.	Milk fat per cent.	Deficiency in fat per cent.	Remarks.
503	3·20	8·5	Declared skimmed.
504	3·35	4·25	„
505	3·0	14·2	„
506	3·2	8·5	„
1571	3·1	11·0	„
1572	3·1	11·0	„
1642	3·2	8·5	„
1641	3·2	8·5	„
1640	3·3	5·7	„
1639	3·0	14·2	„

The statutory limit for milk-fat in goat's milk is 3·5%.

SPIRITS BELOW THE STATUTORY LIMITS.

Lab. No.	Nature.	Under proof.	Equivalent to added water per cent.
1510	Whisky	28·06	4·0
1504	Brandy	27·60	3·4

Spirits of this nature should be 25·0 degrees under proof.

OTHER ADULTERATED SAMPLE.

Lab. No.	Nature.	Iodine per cent.	Potassium Iodide per cent.	Remarks.
1995	Tinct. of Iodine.	16·25	15·29	{ Iodine deficiency 33·3% Pot. Iod. deficiency 38·8%

AVERAGE COMPOSITION OF MILKS.

The average composition of goat's milk was:—

Milk-fat	...	...	...	4·18 per cent.
Non-fatty solids	...	...	...	8·89 „

The average composition of cow's milk was:—

Milk-fat	...	...	...	3·82 per cent.
Non-fatty solids	...	...	...	8·95 „

DRUGS.

All of the drug samples purchased from the pharmacists in Gibraltar were genuine with the exception of one sample of tincture of Iodine. This specimen appeared to be deliberately adulterated, being deficient in Iodine (33%) and in Pot. Iodide (38%).

OLIVE OIL.

The samples of olive oil received for analysis continue to be of good quality and in no instance was an abnormally high percentage of acidity found. The highest acidity did not exceed 2·53 per cent. and the lowest was 0·78 per cent.

GOAT'S BOILED MILK.

It is satisfactory to report that no sample of goat's milk was offered for sale to the public unboiled.

Of the 47 samples of goat's milk analysed, ten (or 21%) were deficient in milk-fat as the result of skimming by the vendor. This is an increase over last year's figures of 11 per cent. Vendors appear to be at liberty to take off the fat which rises quickly to the surface after boiling and offer the skimmed or partly skimmed milk to the public at the same cost as whole milk. The law is evaded by declaring to the Sanitary Inspectors at the time of purchase that the milk is skimmed. No such statement appears to be made to the general public who unwillingly are deprived of some of the valuable milk-fat. This milk-fat is particularly valuable to invalids and children.

CONDENSED MILK.

Figures of analyses are given showing the composition of three samples of condensed milk which were submitted to these laboratories during the year by the Public Health Department.

Two of these were sweetened while the third was labelled "Skimmed."

"Sweetened."

<i>Milk Solids.</i>	<i>Fat.</i>	<i>Milk Sugar.</i>	<i>Cane Sugar.</i>	<i>Protein.</i>	<i>Ash.</i>
74·8	6·5	10·09	47·35	8·56	2·30

Full Cream.

<i>Milk Solids.</i>	<i>Fat.</i>	<i>Milk Sugar.</i>	<i>Cane Sugar.</i>	<i>Protein.</i>	<i>Ash.</i>
75·45	6·5	7·15	50·5	9·10	2·20

Skimmed and Sweetened.

<i>Milk Solids.</i>	<i>Fat.</i>	<i>Milk Sugar.</i>	<i>Cane Sugar.</i>	<i>Protein.</i>	<i>Ash.</i>
75·6	0·5	13·09	48·46	11·40	2·15

A full cream sweetened condensed milk should contain milk-fat 9·0% and milk solids 31·0%.

METALLIC CONTAMINATION OF AERATED WATERS.

Continued supervision of the manufacture of aerated waters in Gibraltar revealed the presence of lead in harmful quantities in the soda water of one factory. Solder containing lead was found in the carbonator and has been removed. This carbonator was out of use last year.

GOAT'S MILK—STERILISED IN BOTTLES.

A bacteriological investigation was carried out to determine whether a milk vendor was adequately subjecting milk to the correct temperature, etc., in the process of sterilization.

	<i>Sample 34 before sterilising.</i>	<i>Sample 34 sold as sterilised.</i>	<i>Sample 34 after correctly sterilising and instruction.</i>
B, Coli	1,000,000 per c.c.	not in 10 c.c.	not in 10 c.c.
Streptococci	1,000 per c.c.	not in 10 c.c.	not in 10 c.c.
Enteriditis change	in 30 c.c.	not in 30 c.c.	not in 30 c.c.
Organisms, 37° C. per c.c.	42 millions	520	12
Organisms, 22° C. per c.c.	75 millions	152	13

It will be noticed that the number of organisms has been reduced from 520 per c.c. to 12 per c.c. when correct sterilising is practised.

PART II—MISCELLANEOUS.

Samples under this heading which were analysed during the year numbered 167, as follows:—

3 samples of Chloride of Lime for estimation of chlorine available.

1 sample of Wine to determine if a natural wine.

28 samples of Sugar to determine if damaged by sea water and extent of damage.

56 samples of Flour for analysis and detection of presence of *Acarus Farinæ*, etc.

10 samples of Alcohol, analysis for strength.

2 samples Tobacco to determine if damaged by sea water and extent of damage.

8 samples of Coal for analysis and Caloric Power.

1 sample of "Flintkote" bitumen to ascertain if suitable to use in fresh water tanks.

2 smears for detection of Leprosy Bacilli.

2 samples of Carboard boxes to determine if damaged by sea water.

1 sample of Bloaters for evidence of decomposition.

1 sample of Ice for bacteriological purity.

1 sample of Tunny fish for evidence of presence of food poisoning organisms.

8 samples of Soda water for estimation of lead.

1 tin of Salmon for detection of food poisoning bacilli and decomposition.

- 1 tin Herrings for detection of food poisoning bacilli and decomposition.
- 1 tin Margarine for detection of food poisoning bacilli and decomposition.
- 3 samples of Cow's milk—examined for presence of Tubercle Bacilli.
- 2 scrapings of skin (Horses) for evidence of Mange.
- 1 Fæces for detection of Arsenic.
- 1 bottle of Tabloids—for detection of narcotics (morphine).
- 2 samples of Solder for presence of lead.
- 1 metal pipe for presence of lead.
- 1 sample of Water for evidence of sanitary water contamination.
- 2 bottles of standard Sulphuric Acid prepared.
- 1 specimen of vomit—examination for food poisoning bacilli.
- 1 sample of Water to determine cause of corrosion of boiler tubes.
- 1 sample of Cane Sugar for purity.
- 13 articles of Clothing, etc., for detection of blood in stains.
- 3 samples of Catgut to be tested for sterility.
- 1 Hair sample to detect presence of ringworm.
- 5 grain weights to be tested and adjusted.
- 1 piece of Metal from plate for presence of lead or copper.

NO. 5 WELL, NORTH FRONT.

A scheme, carried out by the Medical Officer of Health and City Engineer, to store and purify this supply of water for potable purposes in case of emergency was completed. Bleaching powder was used. This necessitated bacteriological analyses of the water and of the bleaching powder used during the experimenting stage of the procedure.

This water comes from an underground stream which is liable to contamination. The chlorine content varies and at times it is thought that a little sea water may gain access to the stream, the highest chlorine content reached during the year (27/8/30) being 38 parts per 100,000 of water. Results of analysis are here recorded,

The final results after using 85 grams of bleaching powder (available chlorine = 30.5) to the tank of 6,000 gallons of water were :—

	<i>Before Chlorination.</i>	<i>After Chlorination.</i> 1 hr.
B. Coli	present in 5 c.c.	none
Organisms growing at 37° C. per c.c.	254	none
Taste of Chlorine	—	none

FLOUR.

Infection of sacks of flour with the flour mite—*Acarus Farinæ*—became prevalent. Seventy sacks were examined for this insect of which sixty per cent. were found to be infected. *Acarus Farinæ* multiplies rapidly under the right conditions of temperature and moisture causing flour to deteriorate and seriously affecting it for bread making.

TOXICOLOGICAL AND FORENSIC.

- (1) A bottle containing mixed tabloids. Morphine was not detected, the tabloids being Aspirin and Sodium Bicarbonate.
- (2) Various articles of clothing, etc. Blood was not detected in the stains.
- (3) Shoes. Blood detected.
- (4) Preparation and mounting of hairs found in basin. These hairs were of two kinds (1) Wool and cotton of different colours, (2) Animal hairs (not identified).
- (5) Blood films for evidence of lead poisoning—none.
- (6) Soldier's plate for presence of lead, copper—not found.
- (7) Stomach contents—Morphine not detected.
- (8) Tinned foodstuffs for food poisoning organisms and evidence of decomposition. Examined with negative results.

PART III.—BACTERIOLOGY—CHEMICAL PATHOLOGY AND PUBLIC HEALTH WORK.

	<i>No of specimens.</i>
Drinking waters and others	354
Swabs—B. Diphtheriæ, Vincent's organisms, &c.	893
Sputa—Tubercle Bacillus or other causative organisms	197
Bloods—Widal, T.A.B. and Undulant Fever ...	209

Bloods—Widal, goat's blood for Undulant Fever	162
Bloods—Counts, Hb, red and white cells and differential	46
Bloods—Smears for Malaria, piroplasmosis, Relapsing fever and Anthrax B.	80
Bloods—for Cultures	11
Bloods—Sugar estimations, including sugar tolerance tests	112
Bloods—Urea estimations, including urea concentration factor... ..	34
Bloods—Wassermann reaction... ..	452
Blood—Uric Acid estimation	1
Nasopharyngeal swabs—for Meningococcus (culturally)	103
Cerebro - spinal fluids — Cytology, Globulin, Wassermann, Sugar, Micro-organisms, &c.	20
Pleural, Hydrocele, Peritoneal fluids—Cytology, Organisms	14
Urines—general analysis, sediment and bac- teriological	1,308
Urines—Urea estimations, including urea con- centration tests	48
Pus — Gonococcus and other causative organisms	76
Fæces—Bacteriological, for Enteric, Dysen- tery, food poisoning groups and Helminths	175
Breast Milks—chemical analysis	22
Serum for V.S.—for Tr. Pallidum (dark ground)	16
Rats—examination for Plague	39
Histological — Section, cutting, fixing and staining	5
Gastric contents	6
Guineapig inoculations virulence tests, K.L.B., etc.,	11
Autogenous Vaccines—from cultures pre- pared	29
Stock vaccines—diluted	12
Miscellaneous	39
	<hr/> 4,474 <hr/>

The miscellaneous samples comprise calculus analysis, tapeworm, glands for actinomycosis and Tubercle B., urines for acidosis and diazo reactions, teeth cavity swabs, fæces for occult blood, etc.

DISTILLED WATER.

Three hundred gallons of distilled water were made and sold.

ANIMAL INOCULATIONS.

The inoculation of Guineapigs to determine the virulence or otherwise of the Diphtheria bacillus was conducted for eleven patients. Of these six were old cases of Diphtheria persistently carrying the organism and five were for contact cases.

Of the six old cases three were virulent and three not virulent.

Of the five contact cases two were virulent and three were not virulent.

VETERINARY WORK.

- (1) Scrapings of skin of horse for mange—negative.
- (2) Pus from abscess of horse—cocci present.
- (3) Vomit of dog for strychnine—no alkaloid detected.
- (4) Hairs of horse for ringworm—negative.
- (5) Skin scrapings of horse for ringworm—negative.

GOATS.

The serological agglutination test was carried out on the 162 goats living on the "Rock." All gave negative results for Undulant Fever.

RATS.

Thirty-nine rats which were caught in Gibraltar or on the Quay sides were examined for the bacillus of Plague—All were negative.

THE EXAMINATION FOR B. DIPHTHERIÆ.

In the examination of throat swabs for the Diphtheria bacillus only the Klebs-Loeffler organism was considered, the Hoffmann bacillus being disregarded. Both beaded and barred types were met with.

In all, 893 swabs were examined and 25 new cases of Diphtheria (affected throats with presence of K.L.B.) were diagnosed.

Contact Swabs:—In connection with the above new cases of Diphtheria 416 contact swabs were taken and examined of which 12 contained K.L.B.—a percentage of positive contact swabs of 2·8.

The occurrence of Diphtheria in a school necessitated the taking of swabs of the rest of the boys numbering 180. Klebs-Loeffler bacillus was found in three of these.

VINCENT'S ANGINA.

The organisms of Vincent's Angina were found in the direct smear examinations of 4 swabs. They were found in 4 swabs the previous year.

TUBERCLE BACILLUS.

Varied specimens are submitted for detection of T.B. sputum. In 43 of the 197 specimens (21.8 per cent.) examined the diagnosis of tuberculosis was confirmed by finding the organism in the sputum. For the previous year the number was 49 or 32.2 per cent.

Cerebro-Spinal fluid—T.B. present in one.

Pleural fluid—examination pointed strongly to T.B. infection in five specimens.

Cow's Milk—T.B. not found in the milk of 3 cows.

Urine—three examined, T.B. present in one.

MALARIA.

Of the 80 blood specimens which were examined for Malaria the parasite was found in one.

ANTHRAX.

No Anthrax bacillus was found in any blood smear submitted during the year.

LEPROSY.

Nodule—Leprosy bacillus not found.

Nasal discharge—No Leprosy bacilli present.

MENINGOCOCCAL MENINGITIS.

During the visit of the fleet in the early part of the year this disease occurred on three of H.M. ships. H.M.S. *Argus* had two cases and H.M. ships *Wallace* and *Frobisher* had one each.

In the first two cases (H.M.S. *Argus*) the meningococcus was isolated from nasopharyngeal swabs and in one of these also from the cerebro-spinal fluid. In another case (H.M.S. *Wallace*) marked inflammation of the meninges was shown by the presence of considerable excess of globulin in the cerebro-spinal fluid, but there was no increase in the leucocytes (5 per c.m.m.) on the two occasions it was examined. The meningococcus could not be found in either the nasopharyngeal swab or the C.S.F. in this case. The fourth case from H.M.S. *Frobisher* is of some professional interest. Nasopharyngeal swabs (three occasions) and cerebro-spinal fluid (two occasions) were negative for meningococcus, and there was no increase in leucocytes or globulin in the C.S.F.

As the clinical report showed that the patient had marked meningeal symptoms followed by arthritis the case was considered a "cysted form," and it would appear that it is possible in some forms of this disease for the cerebro-spinal fluid to show no evidence of inflammation of meninges as shown by an increase in globulin content.

In connection with the above four cases nasopharyngeal contact swabs numbering 72 were taken and examined culturally for meningococcus all with negative results.

In two of the above cases *Bacillus Coli* was shown to be the causative organism of Cystitis which followed the disease.

Autogenous vaccines were made.

CEREBRO-SPINAL FLUIDS.

Cytology, Globulin, Sugar test and bacteriological examinations are systematically carried out on all specimens. When especially indicated the amounts of sugar, urea, and sodium chloride are estimated and the Wassermann reaction done.

Tabulated results of findings :—

Normal fluids—six.

Meningococcus present in one.

Tubercle Bacilli present in one.

Fluids pointing to tubercular meningitis but organism not found were three.

Those giving a positive Wassermann test were two.

Those obviously pathogenic but without organisms were four.

PLEURAL FLUIDS.

Cytology and bacteriological examinations were conducted on all specimens.

Pneumococci were isolated from two specimens.

Streptococci were isolated from one specimen.

No micro organisms could be found in three though polymorphs were numerous.

Four were probably tubercular, indicated by presence of numerous lymphocytes.

It is not usual to find Tubercle Bacillus in pleural fluids. The absence of organisms together with many lymphocytes points strongly to a tuberculous condition.

BLOOD SUGAR ESTIMATIONS AND SUGAR TOLERANCE TEST.

During the year 112 estimations of blood sugar were done.

A complete sugar tolerance test was conducted on one patient for the diagnosis of diabetes. The rest were individual tests made on diabetics for guidance in insulin treatment. McClean's method is used. The result of the sugar tolerance test is given for interest. No sugar was found in urine before, during, or after the test. There appeared to be no defect in the capacity of the patient to store sugar.

<i>Blood Sugar before giving 50 grams sugar.</i>	<i>Blood Sugar after taking 50 grams sugar per cent.</i>			
<i>per cent.</i>	$\frac{1}{2}$ hr.	1 hr.	1 $\frac{1}{2}$ hrs.	2 hrs.
0.117	0.189	0.166	0.125	0.099

RENAL EFFICIENCY TESTS.

In connection with kidney disease (Azotoemic type) the degree of efficiency of these organs in eliminating the waste nitrogenous products (urea) of the body is determined in two ways known as (1) Urea Concentration factor, (2) Urea Concentration test.

Urea Concentration factor:—Estimations of blood urea and urine urea are done at the same time. The ratio of one to the other gives the number of times the kidneys are concentrating the blood urea in the urine. This normally is about 70 times or even more. Tests were conducted on 30 patients, an increase of 19 on the previous year. Some of the results obtained showing the difference between diseased kidneys and efficient ones are given for interest.

<i>Case.</i>	<i>Blood Urea (mgms. in 100 c.c.)</i>	<i>Urine Urea (mgms. in 100 c.c.)</i>	<i>Urea concentration factor.</i>
1	38	3300	86.8 good
2	15	1350	90.0 good
3	29	1000	34.5 medium
4	385	1000	2.6 very bad
5	173	1050	6.0 very bad

Urea Concentration test:—The amount of urea in the urine is ascertained one hour and two hours after the patient has taken 15 grams of urea in water. In normal conditions a concentration of 2·5 per cent. or over of urea is to be expected. Some variations obtained are here given.

	Case 1.	Case 2.	Case 3.	Case 4.
Urea in urine 1st hr.	4·0	2·35	1·25	1·1
Urea in urine 2nd hr.	4·1	2·95	2·1	1·4
	very good.	good.	fairly good.	bad.

WORMS, HELMINTHS, &C.

To determine to what extent, if any, worms occur amongst those living in Gibraltar differential blood counts particularly in respect of Eosinophilia were conducted on 66 persons. All of these were normal—the highest percentage of eosins being 3·3 per cent. and the lowest 0·3 per cent.

Twenty-nine stools of others were also examined for presence of ova. All but one (*Trichocephalus dispar*) were negative.

FOOD POISONING.

One isolated case, which proved fatal in 36 hours, was diagnosed by finding a member of the *Salmonella* group ("Newport" strain) in the patient's stools. Other members of the household were not affected. The contaminated food could not be traced.

DYSENTERY.

Many stools were submitted for evidence of the type of organism causing this condition. Many of these specimens were "diarrhœal" in character in contrast to the more serious dysentery stool containing blood and pus with a definite causative organism.

Bacillus Dysenteriae Shiga, Flexner and Morgan's bacillus were met with—Flexner being the most prevalent. The amoebic form of dysentery was not encountered during the year.

NOTIFIABLE DISEASES.

The table given below shows the number and nature of specimens examined and the results obtained in connection with the notifiable diseases, venereal disease, etc.

	Total.	Positive.	Negative.
Blood for Venereal Diseases (Wassermann)	452	84	368
Cerebro-spinal fluid (Wassermann)	20	1	17
Cerebro-spinal fluid (T.B.)		1	
Cerebro-spinal fluid (Meningococcus)		1	
Pus for Gonococci	76	17	53
Pus for Pneumococci		3	
Pus for Streptococci		1	
Serum (V.S.) for Tr. Pallidum	16	4	12
Sputum for Tubercle Bacillus	197	43	154
Swabs for B. Diphtheriæ	893	115	773
Swabs for Vincent's organisms		5	
Blood culture for Enteric and Undulant fevers ..	11	—	11
Widal reaction:—			
B. Typhosus	269	16	176
B. Paratyphosus A.		8	
B. Paratyphosus B.		6	
Mic. Melitensis		2	
Meningococci		1	
Fæces —			
B. Typhosus	175	2	154
Morgan's No. 1 bacillus		2	
Salmonella group (Newport type)		1	
B. Paratyphosus B.		1	
B. Dysenteriae Shiga		1	
B. Dysenteriae Flexner		10	
B. Ambiguus		1	
Special organisms of Coliform group		3	
Blood smears for Malaria	80	1	79
Naso-pharyngeal swabs (Meningococcus)	103	13	90

Swabs for B. Diphtheriæ include convalescents and contacts.

Fæces for Enteric group include convalescents.

Naso-pharyngeal swabs include contacts and convalescents.

DRINKING WATER AND OTHERS.

These include samples taken from Moorish Castle and Willis's Road, 55; Governor's Parade Fountain, 11; Brackish Water, 12; Sea Water, 11; Underground tank and Wells, 226; North Front Wells, 11; Watering Jetty Water, 10; and Catalan Bay Water, 18.

Tables showing the monthly analysis of Gibraltar drinking water, North Front wells, Watering Jetty water for boiler use, etc., follow this report.

DISTRIBUTION OF SPECIMENS.

For record purposes all specimens and samples examined during the year can be allocated as follows:—

From Military Authorities, 527; from Naval Authorities, 308; from Colonial Hospital, 975; from Spain, 81; and from Civil which includes the general public and City Council, 2,885. Total 4,776.

EQUIPMENT.

The increasing activity of the laboratories has necessitated the granting of an additional small room thus providing space for more benches and fume cupboard.

PART IV.—TESTING OF SHIPS.

Inflammable and poisonous vapours:—The City Analyst is entrusted with the testing of compartments of oil-carrying ships and others for dangerous gases. This class of work was first undertaken for Naval Authorities in 1928 but has since been extended to local shipping agents. Gas free certificates are necessary before ships of this class enter dry dock for repairs.

Two ships were examined:—

(1) A tanker of nearly 6,000 tons which was certified gas free.

(2) A cargo ship on which a fire had occurred in the mixed cargo of foodstuffs, etc. The ship had been flooded. Inflammable and poisonous gases were present beneath the decomposing materials and the agents were warned of the risks to the men when entering the holds to unload.

DISTRIBUTION OF SPECIMENS.

Nature of Specimen.	Civil.	Military.	Navy Received from Military Hospital.	Navy.	Spain.	Colonial Hospital.	Total.
Blood, Wassermann	143	6	3	65	12	223	452
Blood, Count	24	4	...	...	...	18	46
Blood, Culture	1	6	2	...	...	2	11
Blood, Sugar	42	1	...	...	2	67	112
Blood, Urea	24	...	...	...	...	10	34
Blood, Widal	111	41	2	3	3	49	209
Blood, Malaria	7	67	...	...	1	5	80
Blood, Uric acid ... ..	...	...	...	...	...	1	1
Goats' blood for Mic. Meli- tensis	162	...	...	...	...	...	162
Swabs for K.L.B., &c.	651	56	22	18	1	145	893
Sputum	76	8	...	5	5	103	197
Urine	986	30	7	17	44	224	1,508
Fæces	56	62	4	...	2	51	175
Cerebro-Spinal Fluid ... ..	...	...	9	...	1	10	20
Pus—Gonococci. &c.	46	...	2	...	3	25	76
Serum—Tr. Pallidum	1	...	...	14	1	...	16
Human Milk	22	...	...	...	...	...	22
Histological ... ..	...	1	...	3	...	1	5
Gastric contents	2	2	1	...	...	1	6
Rats for Plague	39	...	...	...	...	...	39
Food and Drugs Act	124	...	...	...	...	...	124
Other Food, Drinks	67	59	...	...	...	9	135
Waters	172	164	...	13	5	...	354
Pleural fluids	3	...	...	...	...	11	14
Auto-Vaccines	16	2	5	2	1	3	29
Stock Vaccines	11	...	...	...	...	1	12
Guineapig Inoculation	9	1	...	...	...	1	11
Urea concentration test	34	...	4	...	...	10	48
Coal	8	...	...	...	...	...	8
Nasopharyngeal Swabs	2	17	28	53	...	...	103
Miscellaneous	46	17	2	4	...	5	74
Total	2,885	527	111	197	81	975	4,776

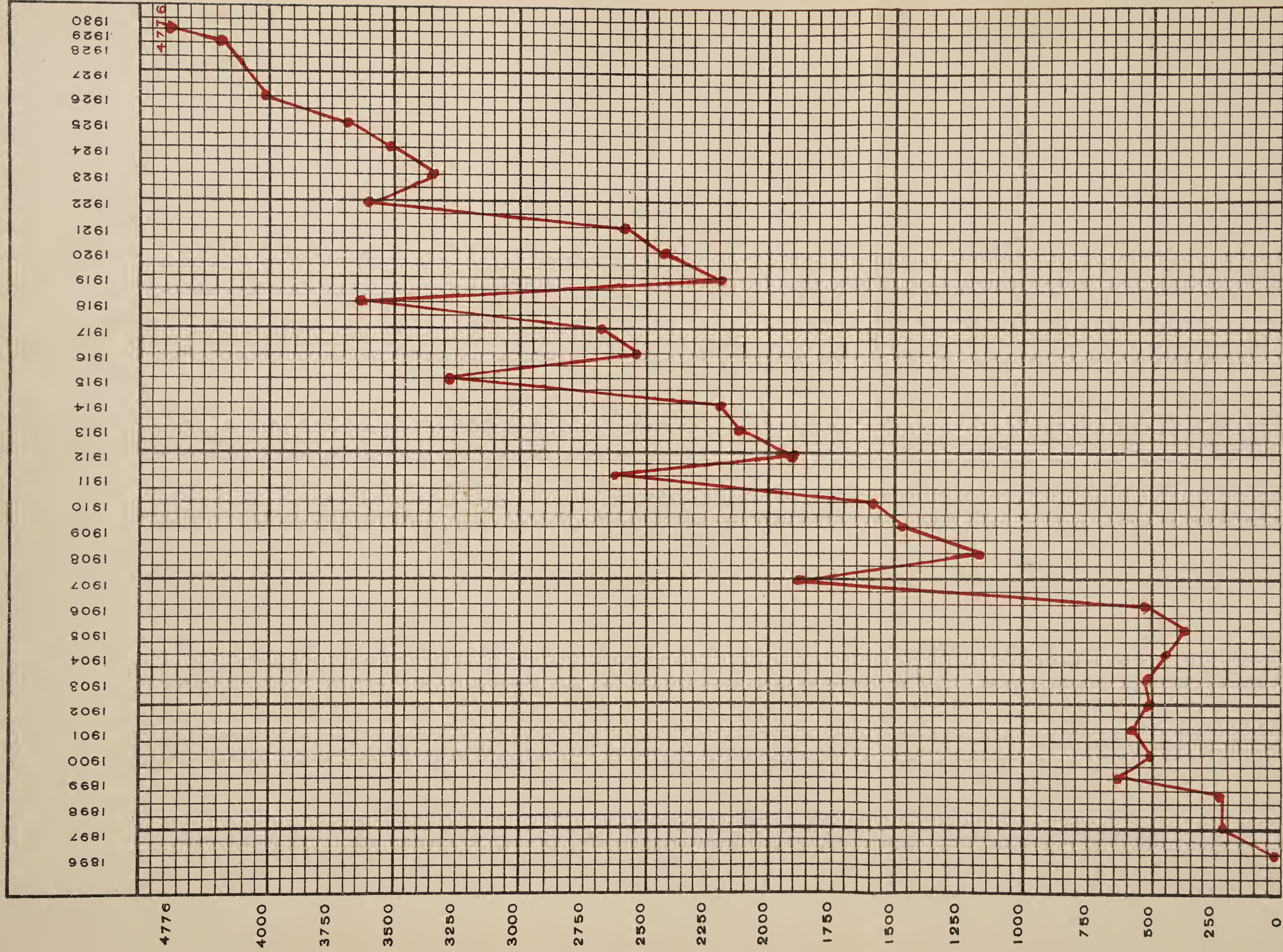
A. GEO. HOLBOROW, F.I.C.,

City Analyst and Bacteriologist,

Gibraltar.

CITY COUNCIL OF GIBRALTAR.

CHART SHOWING NUMBER OF SAMPLES ANALYSED PER ANNUM SINCE THE YEAR 1896.



RESULT OF MONTHLY ANALYSES OF BRACKISH WATER.

SAMPLES OBTAINED FROM MAIN IN GOVERNOR'S STREET.

Date	Chlorine (parts per 100,000).	B. Coli
31/ 1/30	700·0	B. Coli present in 1 c.c.
25/ 2/30	760·0	„ „ 1 c.c.
26/ 3/30	730·0	„ „ 2 c.c.
30/ 4/30	750·0	„ „ 2 c.c.
31/ 5/30	810·0	„ „ 2 c.c.
30/ 6/30	1,020·0	„ „ 1 c.c.
30/ 7/30	930·0	„ „ 2 c.c.
30/ 8/30	1,010·0	„ „ 2 c.c.
30/ 9/30	1,020·0	„ „ 2 c.c.
29/10/30	1,010·0	„ „ 1 c.c.
24/11/30	980·0	„ „ 0·1 c.c.
Average ...	883 6	—

RESULT OF MONTHLY ANALYSES OF WELL WATER.

SAMPLES TAKEN AT NO. 5 WELL, NORTH FRONT.

Date	Chlorine (parts per 100,000).	B. Coli
31/ 1/30	9·0	B. Coli present in 2 c.c.
25/ 2/30	8·0	„ „ 1 c.c.
26/ 3/30	16·2	„ not found in 25 c.c.
30/ 4/30	28·5	„ „ „
31/ 5/30	16·3	„ present in 5 c.c.
30/ 6/30	10·2	„ „ „
27/ 8/30	38·0	—
30/ 9/30	9·6	B. Coli not found in 25 c.c.
29/10/30	5·4	„ present in 5 c.c.
24/11/30	16·0	„ not found in 25 c.c.
Average ..	15·7	—

RESULT OF ANALYSES OF BOILER WATER.

SAMPLES TAKEN AT WATERING JETTY.

Date	Chlorine (parts per 100,000).	B. Coli
31/ 1/30	28·0	B. Coli not found in 25 c.c. " present in 5 c.c. " " 2 c.c. " " 0·1 c.c. " " 1 c.c. " " 5 c.c. " " 2 c.c. " " 5 c.c. " " 0·1 c.c. " " 1 c.c.
25/ 2/30	34·0	
26/ 3/30	29·6	
30/ 4/30	26·4	
31/ 5/30	24·6	
30/ 6/30	33·0	
30/ 8/30	28·6	
30/ 9/30	28·4	
30/10/30	31·0	
24/11/30	28·4	
Average ...	29·2	—

RESULT OF MONTHLY ANALYSES OF SEA WATER.

Date	Chlorine (parts per 100,000).	B. Coli
31/ 1/30	2,030·0	B. Coli present in 1 c.c. " " 0·1 c.c. " " 10 c.c. " " 2 c.c. " " 1 c.c. " " 1 c.c. " " 2 c.c. " " 1 c.c. " " 2 c.c. " " 1 c.c. " " 0·1 c.c.
25/ 2/30	2,050·0	
26/ 3/30	2,050·0	
30/ 4/30	2,030·0	
31/ 5/30	1,850·0	
30/ 6/30	2,070·0	
30/ 7/30	2,050·0	
30/ 8/30	2,020·0	
30/ 9/30	2,020·0	
29/10/30	2,040·0	
24/11/30	1,970·0	
Average ...	2,016·3	—

ANALYSES OF GIBRALTAR DRINKING WATER.

Date.	Chlorine (parts per 100,000).	B. Coli.
31/ 1/30	2.3	B. Coli not found in 25 c.c.
25/ 2/30	14.8	" " "
26/ 3/30	14.2	" " "
30/ 4/30	11.6	" present in 10 c.c.
31/ 5/30	1.8	" " "
30/ 6/30	6.2	" " 1 c.c.
30/ 7/30	5.8	" not found in 25 c.c.
30/ 8/30	2.0	" " "
30/ 9/30	1.6	" " "
29/10/30	2.6	" present in 15 c.c.
24/11/30	2.0	" not found in 25 c.c.
Average ..	6.8	—

SANITARY CIRCUMSTANCES OF THE DISTRICT.

Much of the information given in this section of the report has been kindly supplied by Mr. W. H. Pearce, M. Inst. C.E., F.S.I., M. Inst. W.E., City and Water Engineer.

WATER SUPPLY—

During the year under review the following represent the principal changes or improvements:—

(1) The distribution system in the central area has been much improved by increasing the size of pipes, interconnection, &c.

(2) A commencement was made with the construction of a new pumping station at North Front, and the erection of a duplicate set of pumps and motors. This is a very important matter and will affect the supply of water for many years.

(3) The slightly brackish water from No. 5 Well at North Front has been treated and tested, and found thereafter to be reasonably safe for use as a potable water reserve in cases of grave emergency.

(4) The tunnelling works for the construction of a new potable water reservoir of one million gallons capacity have made progress, and a larger scheme has now been submitted to the Colonial Development Fund Commissioners for assistance.

(5) A further section of the eastern rain water catchment areas has been renewed with teak timbers and new iron sheets owing to depredations of the white ant.

(6) The balanced suction well capacity for Hesse's brackish water pumps was further increased to a capacity of 241,000 gallons, thus allowing for the differences in output and variation of the pumping machinery, &c., as between Hesse's and North Front stations.

(7) The making of ebonite internal parts (fixed and movable) for brackish water meters in the City Council's workshops has been a success, and it appears that the long standing trouble of corrosion wasting and inaccuracy of any meter used for brackish water may be overcome.

The above matters and public works are principally of engineering interest, but are designed to better maintain and improve the sanitary circumstances of the district.

The consumption of potable water from the City Council's reservoirs amounted to 11,773,580 gallons, and was distributed as follows:—

- (a) To the shipping..... 1,552,535 gallons
- (b) To the public 10,221,045 „

The amount of water collected during 1930 was 16,133,344 gallons.

The quantity of brackish water pumped and distributed during the year was 257,901,000 gallons.

The amount of well water supplied to the shipping for boiler purposes was 1,489,100 gallons.

SEWAGE DISPOSAL AND DRAINAGE—

The same system as explained in the previous year's report holds good, namely: a gravitation system principally, with pumping of the sewage, &c., from the northern end of the City only—the whole of the sewage being discharged eventually into the sea at the southern extremity of Gibraltar.

The quantity of sewage lifted during the year at the Orange Bastion Sewage Pumping Station was 65,275,943 gallons.

During the year the principal things done or worthy of mention here are:—

(a) The draining of the low-lying, hitherto undrained area round about the Markets, including the construction of duplicate underground sewage ejectors, &c. This necessary work had been unavoidably side-tracked for many years but was now accomplished in the face of difficulties arising from inflow of sea water, the works being much below sea level and only a few yards from the water's edge.

(b) The construction of large detritus catchpits and the water-proofing of all road surfaces has much lessened the silting-up of the main trunk outfall sewer which has a gradient of only 1 in 1,200, and the velocity of the flow is to a certain extent also impeded at times by tide lock causing silt deposits. The functioning and condition of this main sewer is of prime importance and is very closely related to the sanitary circumstances of Gibraltar as a whole. Gibraltar from the surface or flood water point of view is rather unique, but it can be said at least that drainage matters are infinitely better than they were. Practically no flooding takes place now, but the margin of safety is very, very small.

(c) Observations, gaugings, levels, etc., over several years have culminated at the end of 1930 in the discovery of a bottle-necked confluence at exactly the section of the main outfall sewer. A model of this section of the main outfall

culvert has been made and suggestions will be made to the sewerage authorities with a view to increasing the efficiency and rate of discharge at the particular point. It is an interesting problem of hydraulics and finance, how to get an effect for a few pounds and to avoid reconstruction at a cost of thousands of pounds.

(d) The small storm water overflow relief pipes discharging into the *Cormorant* basin were found to have been improperly cut off by certain sea wall and reclamation works. These easements were restored. In the light of expedience it is clear that during the harbour construction and reclamation works of many years ago that insufficient provision was made or allowed for flood water (surface water) discharge along natural channels and directions, viz.: into the area to be enclosed by the harbour breakwaters. In days gone by also, the development of the town and erection of buildings, etc., was allowed to interfere with or stop up the natural flood water channels running down the steep slopes of the rock to the sea, and quite inadequate alternatives, if any, were provided.

SCAVENGING AND REFUSE DISPOSAL.

The collection and disposal of refuse is carried out as previously described. The refuse destructor has been well maintained, and no domestic refuse is tipped into the sea.

At times during the summer there have been some evidences at Sandy Bay of floating débris, refuse, etc., coming from the shoots at Europa Point. It appears that this refuse might, with advantage be burnt during the summer and bathing season.

The average daily collection and disposal of refuse amounts to about 20 tons excluding street sweepings, etc. There is often difficulty with the disposal of stable manure during the hot months. There is no market for refuse salvage.

SANITARY CONVENIENCES.

These are now all 'modern.' A new convenience for men and women has been designed as part of the Old Poultry Market Scheme and will be erected during 1931.

Squatting closets are largely used in public lavatories.

PUBLIC BATHS.

A great feature and success of the year was the construction and opening of the new Montague Bathing Pavilion. During the summer the daily attendances reached 500. The building was designed and erected by the City Engineer and staff and is an architectural addition to Gibraltar.

HOUSING AND TOWN PLANNING.

The systematic inspection of houses was continued during the year and will be completed early in 1931. The outcome of these inspections has been to bring all houses in Gibraltar up to modern standards as regards drainage, sanitary appliances, ventilation, etc. It should, however, be borne in mind that the majority of the houses (even in the better quarter of the town) are of very old construction and a complete remodelling and rebuilding of them would be necessary to bring them up to modern lines.

In the case of freehold properties there is a general tendency on the part of the owners to follow this course when the premises are due for repair.

During the year a fine open, well ventilated healthy block of tenement buildings at Flat Bastion Road has been designed and constructed by the City Engineer and staff. This forms part of the scheme for the progressive house construction by the Colonial Government. The block consists of 18 tenements of two rooms and kitchen and 1 tenement of three rooms and kitchen with a separate water closet for each tenement, a commodity not often met with in houses of this class in Gibraltar.

The number of houses inspected and reported on during the year was:—

Town—Upper District	48
Middle District	49
Lower District.....	44
South	18
	<hr/>
Total.....	159
	<hr/>

New constructions, reconstructions, additions and repairs of an important nature,
carried out in Gibraltar during the year 1930.

	Freehold Property.	Crown Property.	War Department (in civil occupation).	Totals.
NEW CONSTRUCTIONS—				
Kitchens ...	1	9	—	10
Stables and Coachhouses ...	—	1	—	1
Wash-houses ...	—	2	—	2
Living Rooms ...	2	2	—	4
Water Closets ...	1	1	—	2
New Refrigerator Plants ...	2	—	—	2
Miscellaneous ...	2	—	—	2
CONVERSION OF—				
1 room into 1 room and kitchen	1	3	—	4
Living room into kitchen	—	1	—	1
2 kitchens into 1 kitchen	—	1	—	1
Kitchen into living room	1	—	—	1
Kitchen into school room	—	1	—	1
Store into 4 living rooms and kitchen...	1	—	—	1
Sundry minor conversions	2	2	—	4
Provision of washhouse	—	1	—	1
Provision of terrace	—	1	—	1
Provision of window	—	2	—	2
Provision of staircase	1	1	—	2
Provision of water closet accommodation...	2	6	1	9
Miscellaneous minor alterations	...	...	...	...

Increase.

Decrease.

Stables and Coach houses
Kitchens ...
Washhouses
Living rooms
Water closets
Stores ...
Open areas
Cold Storage accommodation

...
...
...
...
...
...
...
...
...

1
14
3
8
2
—
1
2

—
—
—
—
—
2
—
—

SUMMARY OF WORK DONE BY SANITARY INSPECTORS DURING THE YEAR 1930.

COMPLAINTS RECEIVED:

[illegible]

PREMISES INSPECTED:

General Inspection (systematic house-to-house)	...	...	...	159
Casual Inspection	...	...	...	22

NUISANCES FOUND:

Defective drains	138
Obstructed drains	264
Defective water closets	215
Defective water closet fittings	249
Defective water fittings	176
Defective rainwater pipes	84
Defective eavesgutters	89
Defective roofs	44
Defective yard paving	30
Dampness	27
Premises dirty	56
Defective or no dust bin	168
Suspected pollution of water in underground tank	26
Underground tank not insect proof	16
Brackish water tank not insect proof or no cover	78
Brackish water running to waste	209
Other minor defects	1024

MISCELLANEOUS SERVICES:

Samples of Food and Drugs taken for analysis	...	...	...	126
Premises disinfected for infectious disease	...	...	...	211
Premises disinfected for vermin, etc.	...	...	...	22
Stables disinfected	...	...	...	1211
Articles disinfected at North Front Disinfecting Station	...	...	...	9974
Visits of enquiry re infectious disease	...	...	...	223
Cases removed in ambulances:				
Local	...	...	...	26
Bay	...	...	...	52
Visits to Milk shops	...	...	...	362
Visits to eating houses	...	...	...	342
Visits to mineral water factories	...	...	...	312
Visits to common lodging houses	...	...	...	54
Visits to premises on which notice for abatement of nuisances has been served and are revisited for the purpose of ascertaining if requirements are being complied with	...	...	...	2225
Notices served in accordance with Vaccination Ordinance, 1887	...	...	...	290
Legal proceedings instituted	...	...	...	7
Street water fittings found defective	...	...	...	218

[illegible]

COMMON LODGING HOUSES.

There are two Common Lodging Houses in Gibraltar. These have been visited at regular intervals during the year, and the conditions found to be generally satisfactory.

No cases of overcrowding or infectious disease have been brought to notice and the Bye Laws have been observed.

LIST OF ORDINANCES, BYE LAWS AND REGULATIONS RELATING TO THE PUBLIC HEALTH ENACTED IN GIBRALTAR DURING 1930.

“The Itinerant Market Produce Vendor Rules, 1930.”

Rules made for the better control of itinerant vendors of Market produce.

REPORT OF THE VETERINARY ADVISER.

The general health of all animals in the Colony remains good, and there have been no serious outbreaks of infectious or contagious disease during the year under review.

HORSES AND MULES.

Thirty-six horses were imported by sea into the Colony during the year, and were all examined on landing and found free from disease. Their countries of origin were:—

Malta	6
French Morocco	21
Tangier	2
England	5
India.....	2

Total 36

There were in addition, a number of horses and mules imported from Spain which were not examined.

Horses examined prior to export and their destination were:—

Malta	3
England	3
Tangier	4
India.....	1

Total..... 11

CATTLE.

The numbers imported with their country of origin were:—

	<i>Slaughter Cattle</i>	<i>Milch Cows</i>	<i>Fighting Bulls</i>	<i>Sheep</i>	<i>Pigs</i>
Spain	181	2	71	3,286	1,142
Morocco	2,531	—	—	35	46
England	—	1	—	—	—
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
Totals	2,712	3	71	3,321	1,188

These were examined on landing, and generally, were in good health, except for occasional cases of Foot and Mouth disease in the Moroccan cattle. These, however, were far less numerous or severe than has been the case in recent years and the total cases of Foot and Mouth disease during the whole year amounted to:—

Cattle	...	...	...	...	93
Pigs...	...	...	...	...	7

Total 100

compared with 1,198 cases in 1929.

The usual precautions were taken with this disease, and no milch cows in the Colony were affected.

Details of exports of cattle were:—

	<i>Tangier.</i>	<i>Argentine.</i>
Sheep	7	—
Cattle (Fighting bulls)..	—	71
Goats	8	—

MILCH COWS AND GOATS.

All milch cows and goats were inspected during the year, and on the whole, were in good health and condition.

Only one case of Tuberculosis occurred in a milking cow which was dealt with under “The Diseases of Animal Ordinance, 1925.”

All the milking cows in the Colony (together with all the young cattle in any dairy) were tested with tuberculin during the year, and all milch cows in Gibraltar are at present tubercle-free.

DOGS, CATS, &C.

There was no case of rabies during the year, and stringent regulations are still in force, *i.e.*, permanent muzzling and strict quarantine of imported dogs.

Post mortem examinations were made on three dogs suspected to have died from rabies, and the brains sent to the Pasteur Institute, Tangier, for examination, with negative results.

The new quarantine kennels were kept fully occupied the whole year.

Details of dogs and cats undergoing isolation, &c., are:—

	<i>Dogs.</i>	<i>Cats.</i>
Number detained in isolation suspected as rabid ...	14	6
Number detained as strays	—	4
Number destroyed	42	340
Number detained as smuggling dogs and afterwards destroyed	1	—
Number imported into the Colony which underwent 6 months quarantine	3	—

C. H. S. TOWNSEND,

Major R.A.V.C.,

Veterinary Adviser to City Council.

F O O D .

SUPERVISION OF FOOD SUPPLIES.

General supervision of food, eating houses and premises where food is sold, stored or prepared is carried out by the sanitary inspectors, four of whom are in possession of the certificate of the Royal Sanitary Institute as Inspectors of Meat and other Foods.

Numerous samples of food and drugs were taken during the year by the sanitary inspector in charge of this service for analysis by the City Analyst and Bacteriologist. Details of these samples are given in the City Analyst's section of this report.

Stricter control of itinerant vendors has been obtained by the passing of the Itinerant Market Produce Vendors Rules, 1930. By these rules the itinerant vendors of foodstuffs are required to be in possession of a permit to sell. These permits, which are valid for the day of issue only, are obtainable at the Public Markets where the produce is inspected by a Market Inspector prior to the issue of the permit. The permit may be required to be produced on demand of a Sanitary Inspector, Market Inspector or Police Officer. These rules have resulted in more adequate supervision of foodstuffs entering the City, and in a higher standard of cleanliness, etc., among the vendors in general.

GIBRALTAR MILK SUPPLY.

The importation of milk from Spain has been steadily increasing in recent years, and the greater part of the fresh milk now consumed in Gibraltar is obtained from this source. The bulk of fresh milk consumed is goat's milk.

All imported fresh milk is required to be boiled or sterilised in Gibraltar before retail. Samples of milk before and after sterilisation were taken at intervals throughout the year to ensure that the process was being effectively carried out.

A small amount of fresh milk is produced locally.

The daily consumption of milk in Gibraltar is approximately:—

COWS'			
Locally produced	...	...	120 pints per day
Imported ...	...	...	225 „ „ „
GOATS'			
Locally produced	...	...	250 „ „ „
Imported ...	...	...	3,450 „ „ „
<hr/>			
Total	...	...	4,045 pints per day

Condensed milk is used to the extent of over 1,000 tins per day.

All goats in Gibraltar are examined serologically for Undulant Fever twice yearly, and all cows were submitted to the Tuberculin test by the Veterinary Adviser to the Council during the year. All the goats proved to be free from the disease, but one cow reacted to the Tuberculin test and was destroyed, the subsequent post mortem examination proving the animal to be extensively infected with tuberculosis.

MILK SHOPS.

There are five registered milk shops in Gibraltar in addition to four milk stalls in the Public Markets. These were inspected at intervals during the year and were found satisfactory.

MILK VENDORS.

All milk vendors must be registered by the City Council. During the year under review there were 44 of such registered.

BAKEHOUSES.

There are nine bakehouses in Gibraltar.

Several of these were renovated during the year, and the general conditions under which bread is made may be considered satisfactory. In addition a certain amount of Spanish bread is imported.

BUTCHER'S SHOPS.

There are four butcher's shops in Gibraltar. They were inspected frequently and the conditions have been satisfactory.

ICE CREAM

Is manufactured in three places in Gibraltar.

Permission to manufacture and sell ice cream must be obtained in each individual case and regular inspection of the premises is carried out.

MARKETS AND SLAUGHTER HOUSE.

The Public Markets have been maintained well during the year. The Poultry Market which formed a separate building has now been incorporated with the general Markets and this ensures better supervision and control. Improvements have

also been effected in the ventilation and lighting of the Central Hall. Certain urgent improvements have been carried out at the Slaughter House. Further improvements and repairs to the Markets are in contemplation for next year.

Inspection of all food brought to the Markets is carried out by a staff of trained inspectors.

It is interesting to note that during the year under review two cold storage plants have been erected in the Town by private enterprise, and the amount of frozen meat imported is rapidly increasing. All frozen meat is subjected to medical inspection on importation. The amount of frozen meat imported during the last two years is shown below :—

	1929	1930
Beef	11,713 lbs.	54,741 lbs.
Mutton	2,885 „	25,380 „
Pork	2,366 „	6,374 „
Total.....	16,964 lbs.	86,495 lbs.

The number of animals slaughtered during the year was as follows :—

Cattle	...	...	...	...	2,585
Sheep	...	...	...	...	3,138
Pigs	...	...	...	...	1,154
Total	...	...	...	...	6,877

During the year the Medical Officer of Health, as Inspector of Food, paid 129 visits to the Markets.

The following table shows the causes for which carcasses or portions of carcasses were condemned as unfit for human consumption and ordered to be destroyed :—

CATTLE.				<i>In whole.</i>	<i>In part.</i>
Cysticercus bovis	...	...	...	12	97
Tuberculosis	...	...	...	4	7
Pleurisy	...	...	..	—	1
Pericarditis	...	...	...	1	—
Fever...	...	...	...	6	—
Injury	...	...	...	—	1

SHEEP.

			<i>In whole.</i>	<i>In part.</i>
Emaciation ...	...	...	1	—
Tuberculosis ...	...	...	1	—
Pleurisy ...	...	...	—	2
Fever ...	...	...	1	—
Lymphadenitis ...	...	...	2	2
Sarcocysts ...	...	...	5	4
Abscess (localised) ...	...	...	—	4
Strongylus ...	...	...	—	1
Bruising ...	...	...	—	1

PIGS.

Tuberculosis...	...	...	8	5
Cysticercus cellulosæ	...	...	1	—
Urticaria ...	...	...	—	4
Pleurisy (septic) ...	...	...	1	—
Erysipelas ...	...	...	2	—
Swine fever ...	...	...	2	—
Peritonitis ...	...	...	—	1
Peritonitis (septic) ...	...	...	2	—
Emaciation ...	...	...	1	—
Tumour (abdominal)	...	...	—	1
Abscess (localised)	...	...	—	1

FOOT AND MOUTH DISEASE.

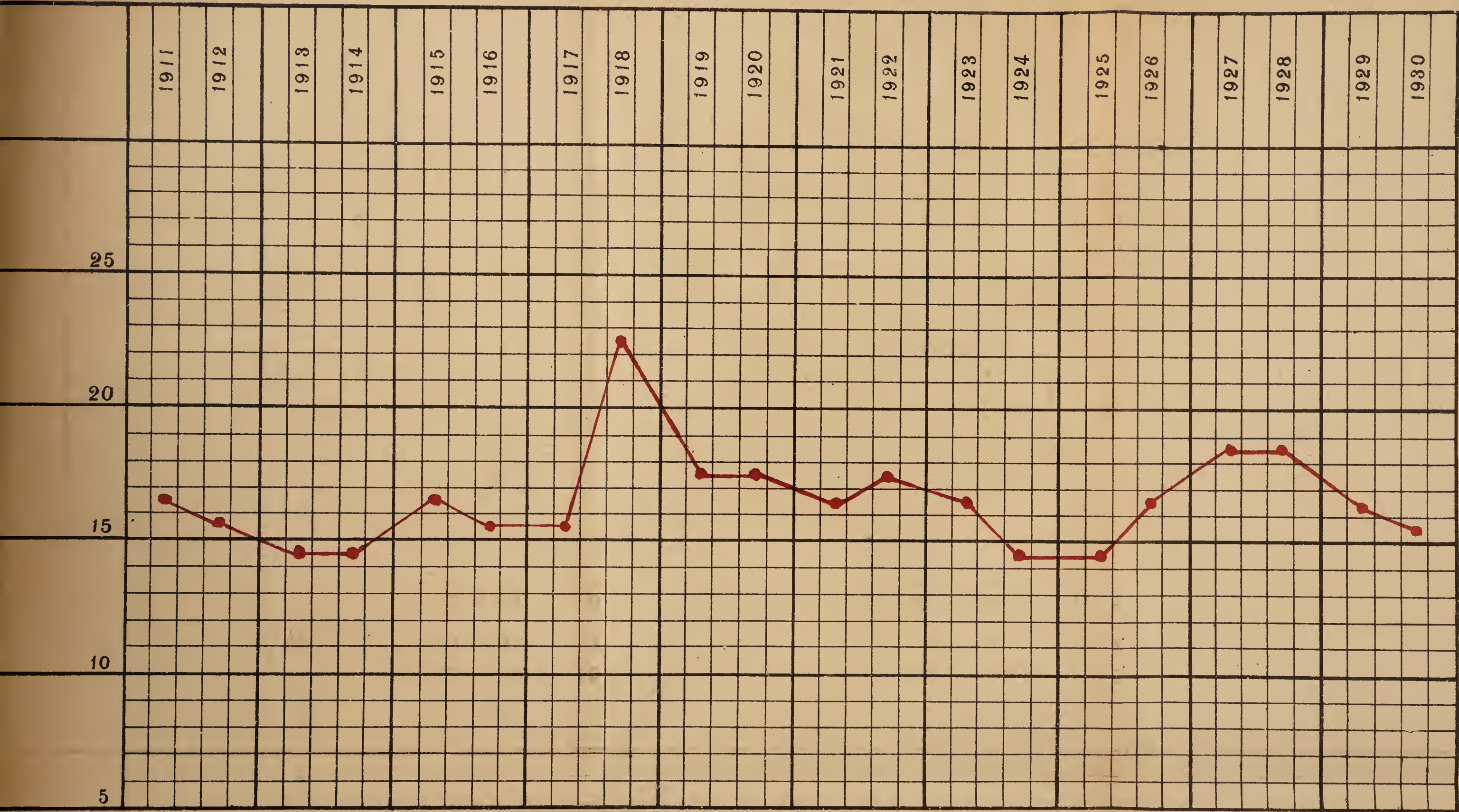
The following is a list of parts of carcasses destroyed during the year:—

			<i>Cattle</i>	<i>Pigs</i>
Heads (complete) ...	...	...	25	—
Gums and Muzzles	...	...	68	—
Tongues ...	...	...	64	—
Feet ...	...	...	372	28
Paunches ...	...	...	93	6

AMOUNT OF SHIPPING ENTERING THE PORT OF GIBRALTAR DURING THE YEAR 1930.

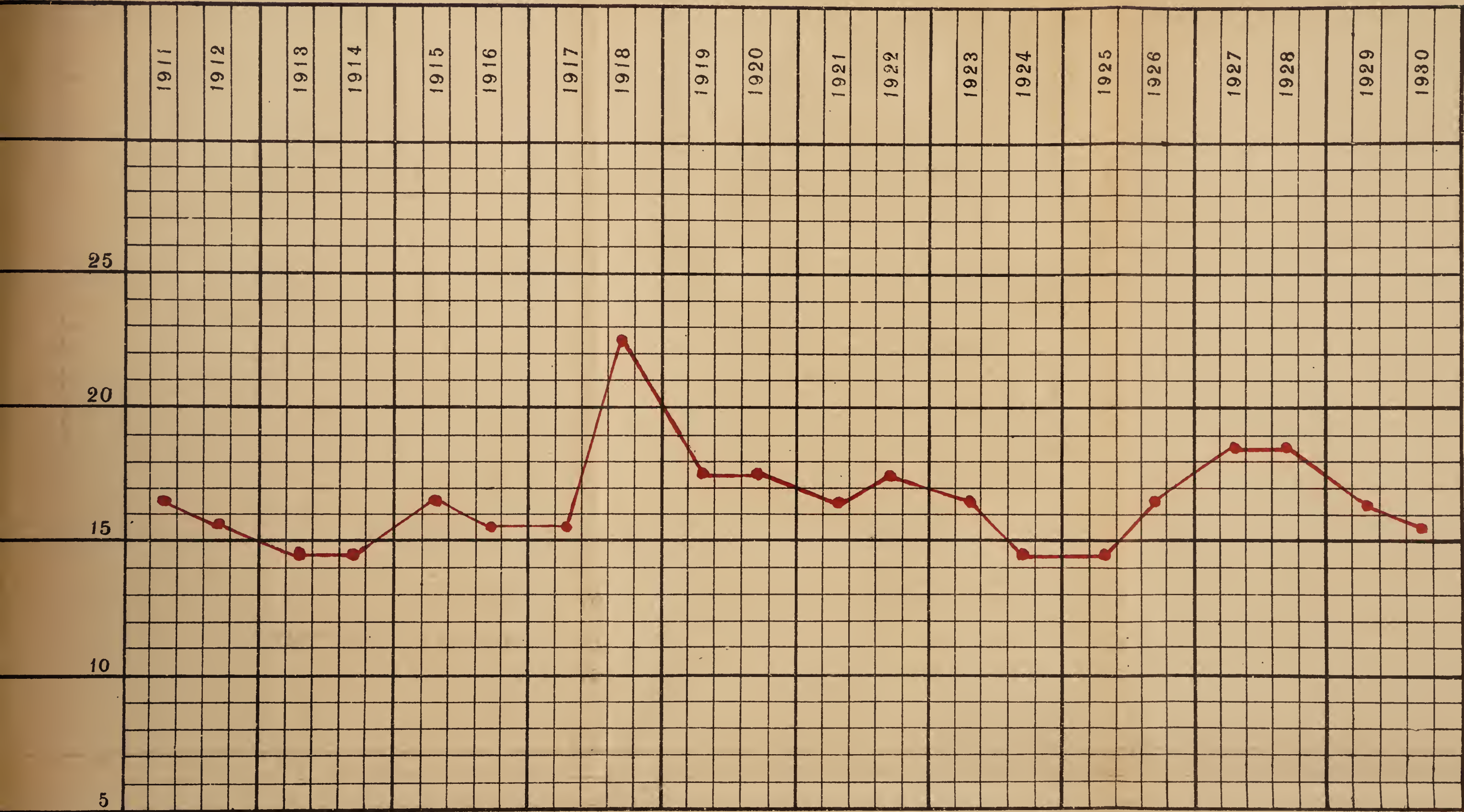
		Number.	Net Tonnage.	Number inspected.	Number left in quarantine.	Number admitted to Pratique.
British	{ Steam	1,065	3,407,599	4	—	4
	{ Sailing	2	258	—	—	—
Total British		1,067	3,407,857	4	—	4
Foreign	{ Steam	1,745	3,820,067	10	—	10
	{ Sailing	1,214	29,904	—	—	—
Total Foreign		2,959	3,849,971	10	—	10
Total British and Foreign...		4,026	7,257,828	14	—	14

GENERAL DEATH RATE PER 1,000 OF POPULATION (TOTAL CIVIL), GIBRALTAR, FOR THE DECENNIAL PERIODS
1911-1920 and 1921-1930



AVERAGE	{	1911-1915	15.5	1921-1925	16.2
		1916-1920	<u>17.7</u>	1926-1930	<u>16.9</u>
		1911-1920	<u>16.6</u>	1921-1930	<u>16.5</u>

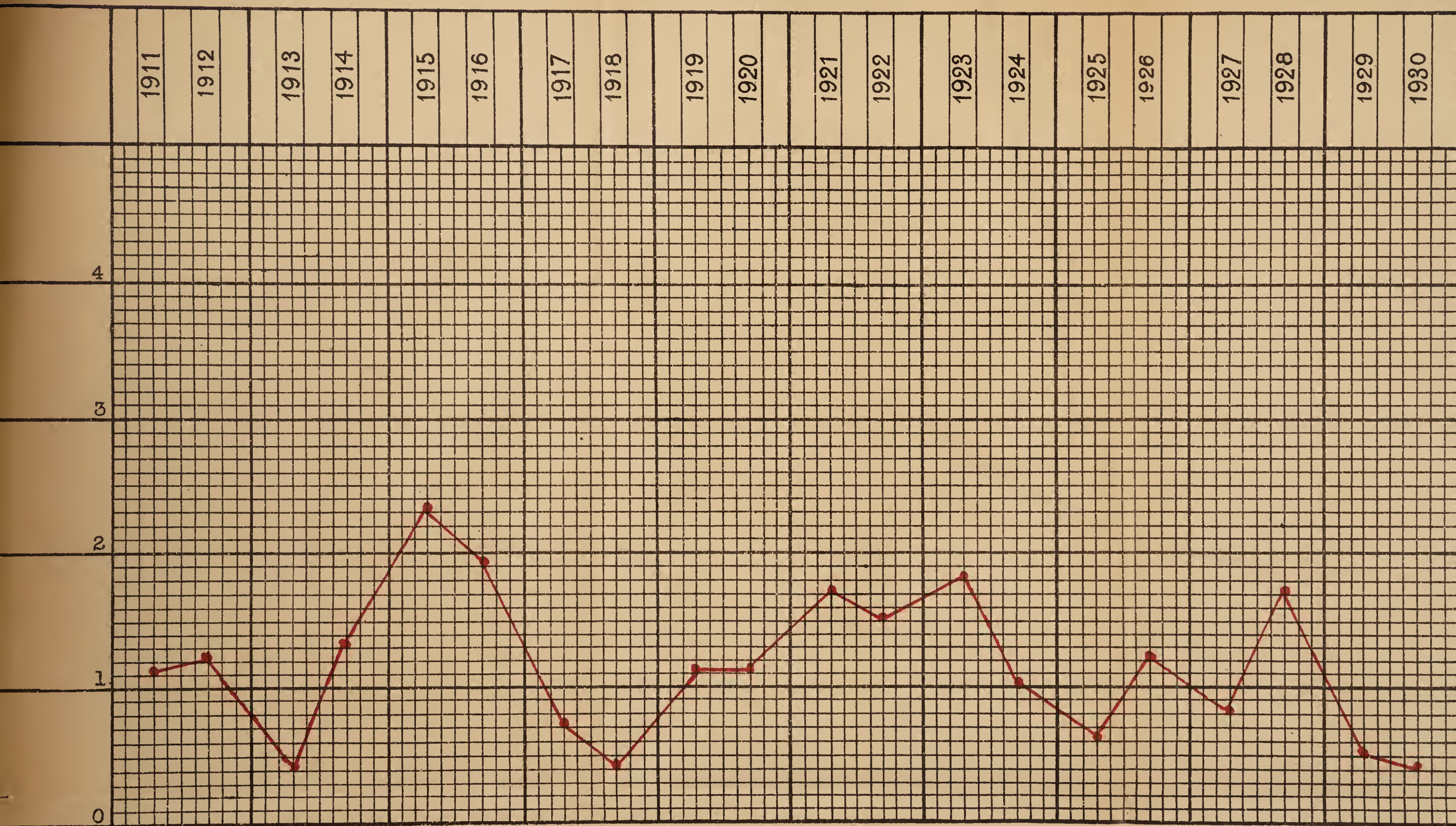
GENERAL DEATH RATE PER 1,000 OF POPULATION (TOTAL CIVIL), GIBRALTAR, FOR THE DECENNIAL PERIODS
1911-1920 and 1921-1930



AVERAGE	{	1911-1915	15.5	1921-1925	16.2
		1916-1920	17.7	1926-1930	16.9
		1911-1920	16.6	1921-1930	16.5

ZYMOTIC MORTALITY PER 1,000 OF TOTAL CIVIL POPULATION, GIBRALTAR, FOR THE DECENNIAL PERIODS

1911-1920 and 1921-1930

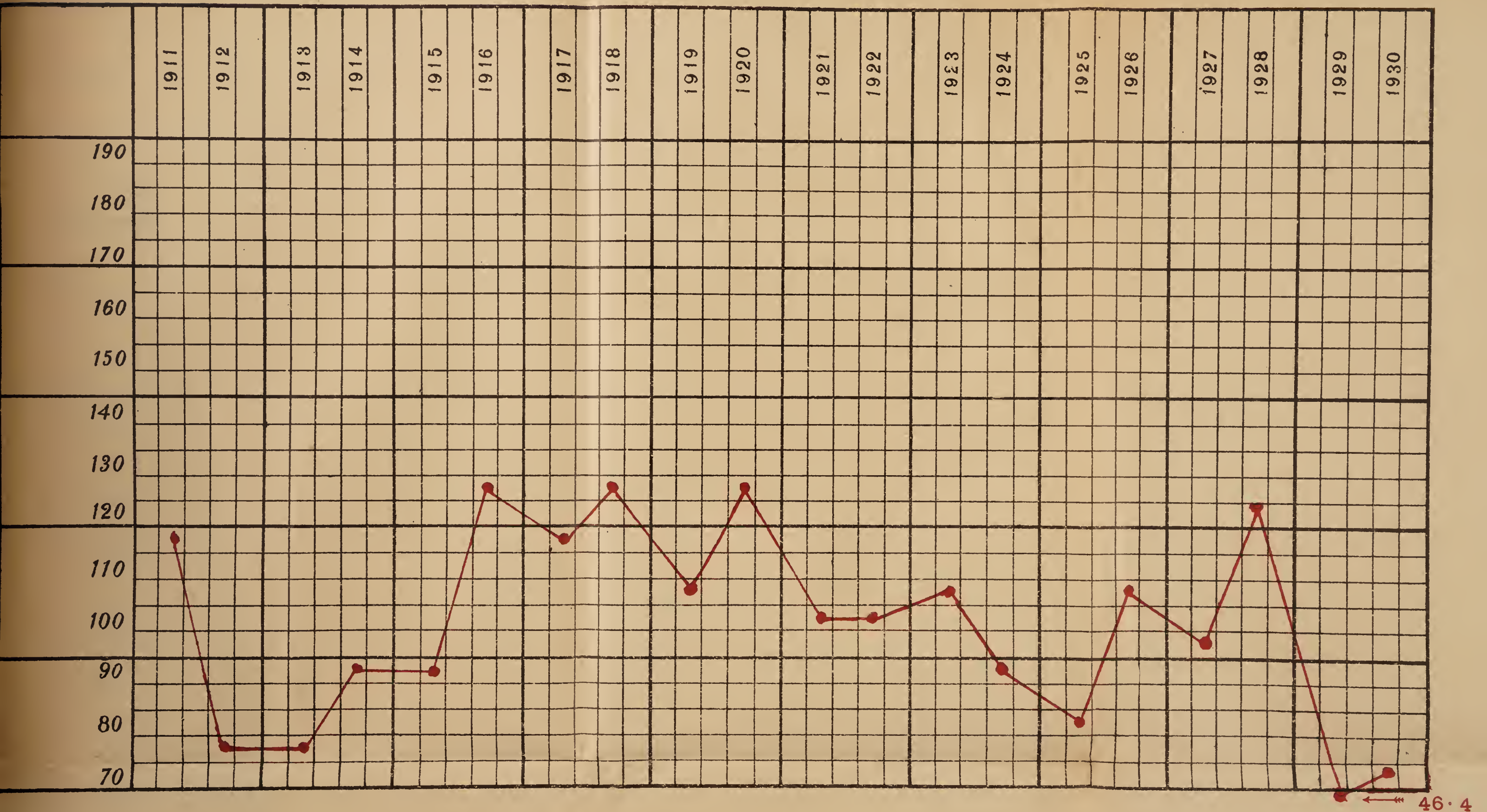


AVERAGE	1911-1915	1.28
	1916-1920	<u>.99</u>
	<u>1911-1920</u>	<u>1. 1</u>

1921-1925	1. 3
1926-1930	<u>.96</u>
<u>1921-1930</u>	<u>1. 1</u>

INFANTILE MORTALITY PER 1,000 BIRTHS, GIBRALTAR, FOR THE DECENNIAL PERIODS

1911-1920 and 1921-1930



AVERAGE	1911-1915	91.1
	1916-1920	<u>119.4</u>
	1911-1920	<u>105.3</u>

1921-1925	97.9
1926-1930	<u>89.5</u>
1921-1930	<u>93.7</u>

46.4

GIBRALTAR.



- | | |
|---|---|
| <p>1 City Council's Quarries and Stone Yards.</p> <p>2 City Council's Rain Water Catchment Area on East side of Rock.</p> <p>3 City Council's Rain Water Catchment Area on West side of Rock.</p> <p>4 City Council's Refuse Destructor and Tip.</p> <p>5 City Council's Disinfecting Station.</p> <p>6 City Council's Animal Post Mortem Room.</p> <p>7 Slaughter Houses (under Colonial Government control).</p> <p>8 Cattle Sheds (under Colonial Government control).</p> <p>9 City Council's Brackish Water Pumping Station—North Front.</p> <p>10 The Cemetery (under Colonial Government control).</p> <p>11 City Council's Yard with Stalls for the Isolation of Animals suspected to be suffering from Infectious Disease.</p> <p>12 City Council's Jetty for the supply of well water to the shipping for boiler purposes, &c.</p> <p>13 City Council's Cart Sheds, Garages, Motor Repair Shop, &c.</p> <p>14 Isolation Hospital (under Colonial Government control).</p> <p>15 City Council's Rain Water Storage Reservoirs.</p> <p>16 City Council's Brackish Water Reservoir ("Calpe").</p> <p>17 City Council's "Moorish Castle" Reservoir with compartments for Fresh and Brackish waters.</p> <p>18 City Council's Brackish Water Pumping Station ("Hesse's").</p> <p>19 Colonial Hospital (under Colonial Government control).</p> <p>20 Gibraltar Home for Sick and Aged (under the control of the City Council but maintained mainly from Government funds).</p> | <p>21 Gavino's Asylum for Aged Poor and Female Orphans.</p> <p>22 Public Sea Bathing Establishments (controlled by the City Council).</p> <p>23 City Council's Sewage Ejector Station.</p> <p>24 Public Baths (under the control of the City Council).</p> <p>25 City Hall and Public Health Department and Laboratories.</p> <p>26 Fire Station (under City Council's control).</p> <p>27 City Council's Electricity Works.</p> <p>28 Military Sea Bathing Establishment.</p> <p>29 City Council's Workshops.</p> <p>30 City Council's Brackish Water Pumping Station (Europa Road).</p> <p>31 "Europa Road" Reservoir with compartments for Fresh and Brackish Waters. Brackish Water portion under City Council's control; Fresh Water portion under War Department control.</p> <p>32 Mental Hospital (under Colonial Government control).</p> <p>33 Loretto Convent and Little Sisters of the Poor Home.</p> <p>34 City Council's Brackish Water Reservoir ("Engineer Road").</p> <p>35 City Council's Brackish Water Reservoir ("Windmill Hill").</p> <p>36 Military Hospital.</p> <p>37 City Council's Air Compressing Station.</p> <p>38 Refuse Sheds, Europa.</p> <p>39 Zymotic Blocks (Naval and Military).</p> <p>40 Hebrew Asylum.</p> <p>41 Public Markets (under Colonial Government control).</p> <p>42 Boarding Station and Pier (under Colonial Government control).</p> <p>43 The Pound (Dogs) and Lethal Chamber (under Colonial Government control).</p> <p>44 Block of Tenement Buildings (First of Colonial Government Housing Scheme).</p> |
|---|---|

Scale, 6 Inches to a Mile

RF 70380

